AD-A172 091 LGM-30B STAGE II DISSECTED MOTOR TEST REPORT(U) OGDEN AIR LOGISTICS CENTER HILL AFB UT PROPELLANT ANALYSIS LAB E M DALABA JUN 86 MAQCP-NR-518(86) 1/2

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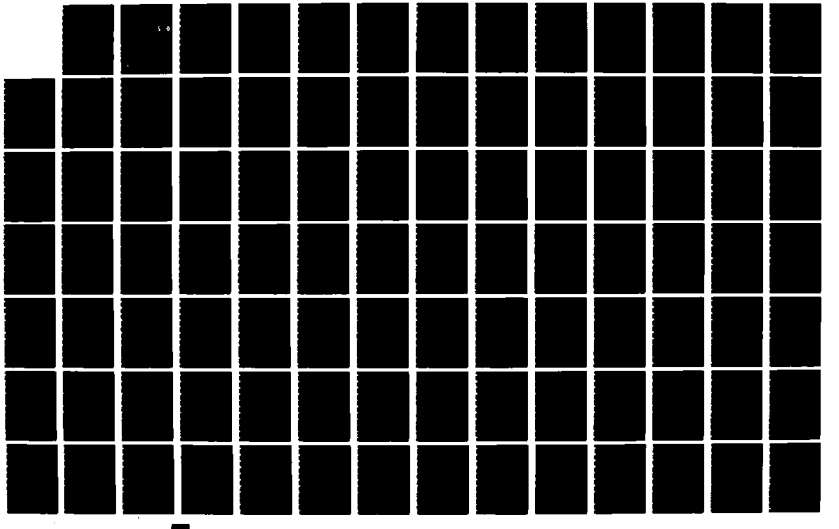

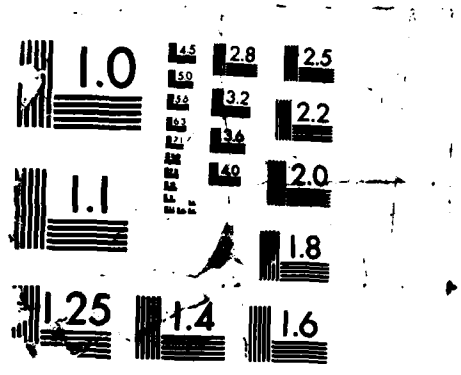

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UNITED STATES AIR FORCE
HILL AIR FORCE BASE, UTAH 84056

LGM-30B STAGE II DISSECTED MOTOR TEST REPORT

PROPELLANT ANALYSIS LABORATORY

MAQCP REPORT NR 518(86)

June 1986

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MAQCP REPORT NR 518(86)

LGM-30, STAGE II

DISSECTED MOTOR

TEST REPORT

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ABSTRACT

This report contains data from first time testing of dissected Minuteman II Stage II motor S/N 0022123 assigned to the Reentry System Launch Program (RSLP). No statistical inferences were determined with only one set of data, except for hardness, where humidified and non-humidified specimens were tested.

Data have been overlayed on multi-motor regression plots for visual reference only. Plots have been made to show differences between different blocks and slices of propellant within the same motor used for mini-thin tensile testing.

Visual observation indicates this motor resembles motor S/N 0022135 more closely than any of the previously tested dissected motors.

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Title and Report Nr	Page
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GLOSSARY OF ABBREVIATIONS AND TERMS

Aging Trend	(Refer to Figure 3 or statistical analysis) A change in properties or performance resulting from aging of material or component
ANX	Outer propellant, ANP-2862
ANY	Inner Propellant, ANP-2864
ASPC	Aerojet Strategic Propulsion Company
Bi-Propellant	Equal sections of ANP-2862 and ANP-2864 in one specimen
CSA	Cross Sectional Area
DB	Dogbone
Degradation	Gradual deterioration of properties or performance
E	Modulus (psi), defined as the slope of the line drawn tangent to the initial linear portion of the curve
EB	End bonded
EGL	Effective Gage Length
e_m	Strain at Maximum Stress (in/in)
e_r	Strain at Rupture (in/in)
"F" ratio	The ratio of the variance accounted for by the regression function to the random unexplained variance. The regression function having the most significant "F" ratio is used for plotting data. The ratio is also used in detecting significant changes in random variation between succeeding time points.
JANNAF	Joint Army, Navy, NASA, Air Force Committee
MAQCP	Propellant Laboratory at OO-ALC
OO-ALC	Ogden Air Logistics Center
Regression	The general form of the regression equation is $Y = a + bX$
Regression Line	Line representing mean test values with respect to time
S_b	Standard error of estimate of the regression coefficient
S_e or $S_{Y.X}$	Standard deviation of the data about the regression line
S_m	Maximum Stress (psi)

S_r	Stress at Rupture (psi)
Standard Deviation (S_Y)	Square root of variance
Strain Rate	Crosshead speed divided by the EGL
't' Test	A statistical test used to detect significant differences between a measured parameter and an expected value of the parameter (determines if regression slope differs from zero at the 95% confidence level).
Variance	The sum of squares of deviations of the test results from the mean of the series after division by one less than the total number of test results
3 Sigma Band	The area between the upper and lower 3 sigma limit. It can be expected that 99.73% of the inventory represented by the test samples would fall within this range assuming that the population is normally distributed
90-90 Band	It can be stated with 90% confidence that 90% of the inventory represented by the test samples would fall within this range assuming that the population is normally distributed

INTRODUCTION

PURPOSE: The purpose of this program is to continue surveillance testing of Minuteman Reentry System Launch Program Stage II propellant. This surveillance will elucidate the aging characteristics of the propellant and, using statistical trends derived from laboratory testing, will help to establish the service life expectancy of similar motors in the inventory.

BACKGROUND: Surveillance testing was initiated in 1963 on cartons of propellant cast from the same propellant used in motor manufacture.

In 1971, all laboratory prepared insulation material and case-to-propellant bond specimens were destroyed in a conditioning chamber malfunction. The number of cartons of propellant was also near depletion, which would have terminated the OO-ALC Surveillance Program.

A force modernization program made available some older Minuteman I Stage II motors. In 1973, three of these motors were selected to represent the motor inventory and were dissected for laboratory surveillance testing. The motors selected were S/N 0022135, cast date June 1963; S/N 0022583, cast date January 1964; and S/N 0022788, cast in July 1964. An additional motor, S/N 0022687, cast in April 1964, became available and was dissected in 1981 for continuing surveillance testing. The test data from Stage II dissected motors were assumed to have a normal population that could be combined. This was a fallacious assumption as shown in MAQCP Report Nr. 496(84) where individual regressions for each motor were made and compared using the analysis of covariance. There were four test periods for motor S/N 0022583, and seven for motors S/N 0022135 and S/N 0022788.

Subsequently, assets from these motors have been depleted. There have been three test periods for S/N 0022687. Data from motor S/N 0022123 was visually displayed on the multi-motor plots for comparison only.

Motor S/N 0022687 was dissected in a different manner from earlier motors. The distance between cuts B and C, and cuts C and D was increased to 16 inches (figures 1 and 2). Motor S/N 0022123 was dissected in the same manner as motor S/N 0022687.

Segments A, B, and C, from section 4 of motor S/N 0022583 were used for testing. Figure 3 illustrates the cutting plan for the latest test period. The general test directive (GTD-2 Dissect Amendment 2, April 1984) specified that test specimens be conditioned at controlled relative humidity. Other changes were different test temperatures for stress relaxation, deletion of some testing, and addition of mini-thin tensile from the bore area.

Motors which have been dissected to date are:

Motor S/N	Cast Date
0022135	63162
0022123	63163
0022583	64008
0022788	64197
0022687	64096

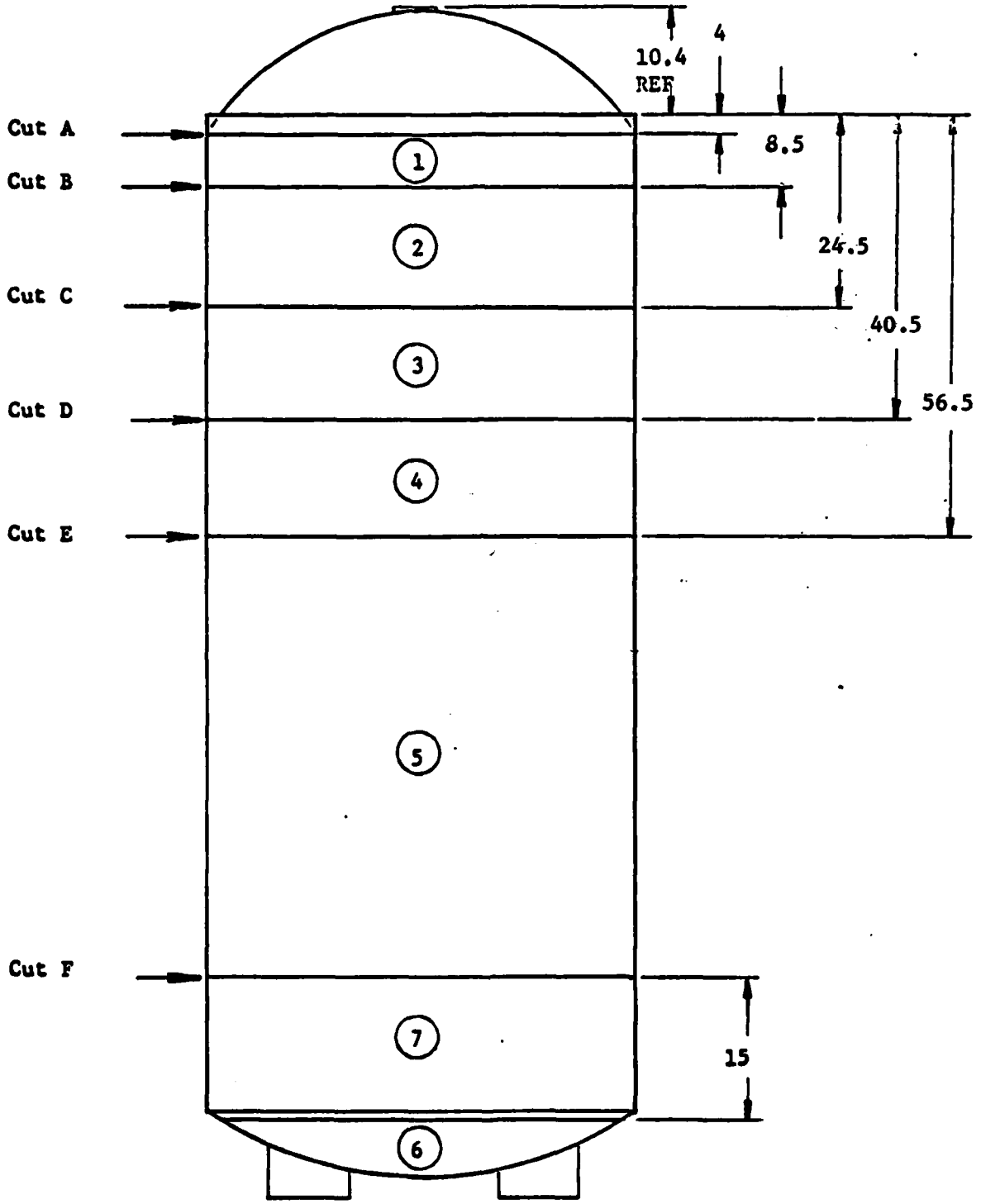


Figure 1 Dissection layout of Cuts, Locations and Section Numbers

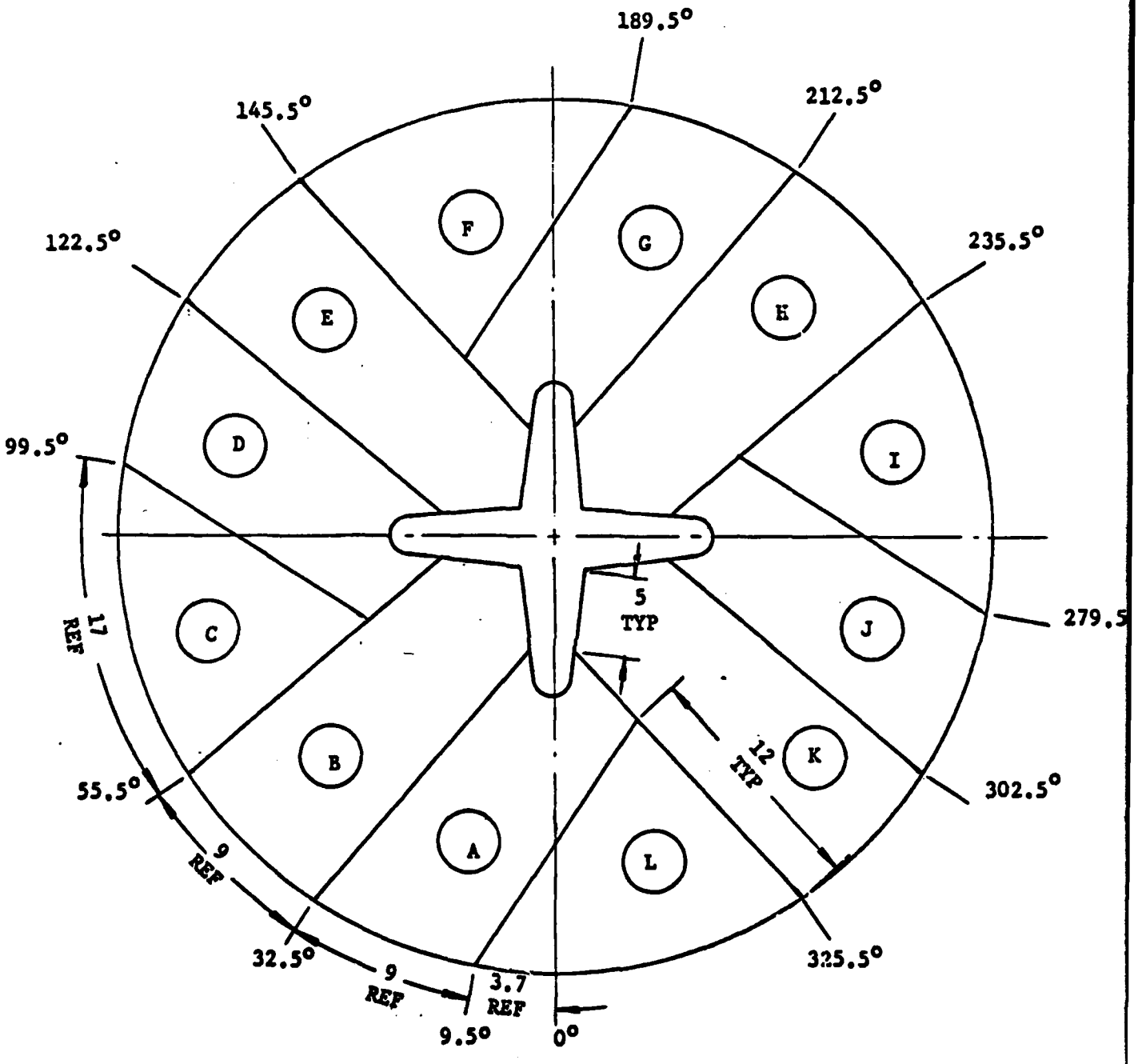


Figure 2 Section 3 and 4 Segment Layout and Letter Identification

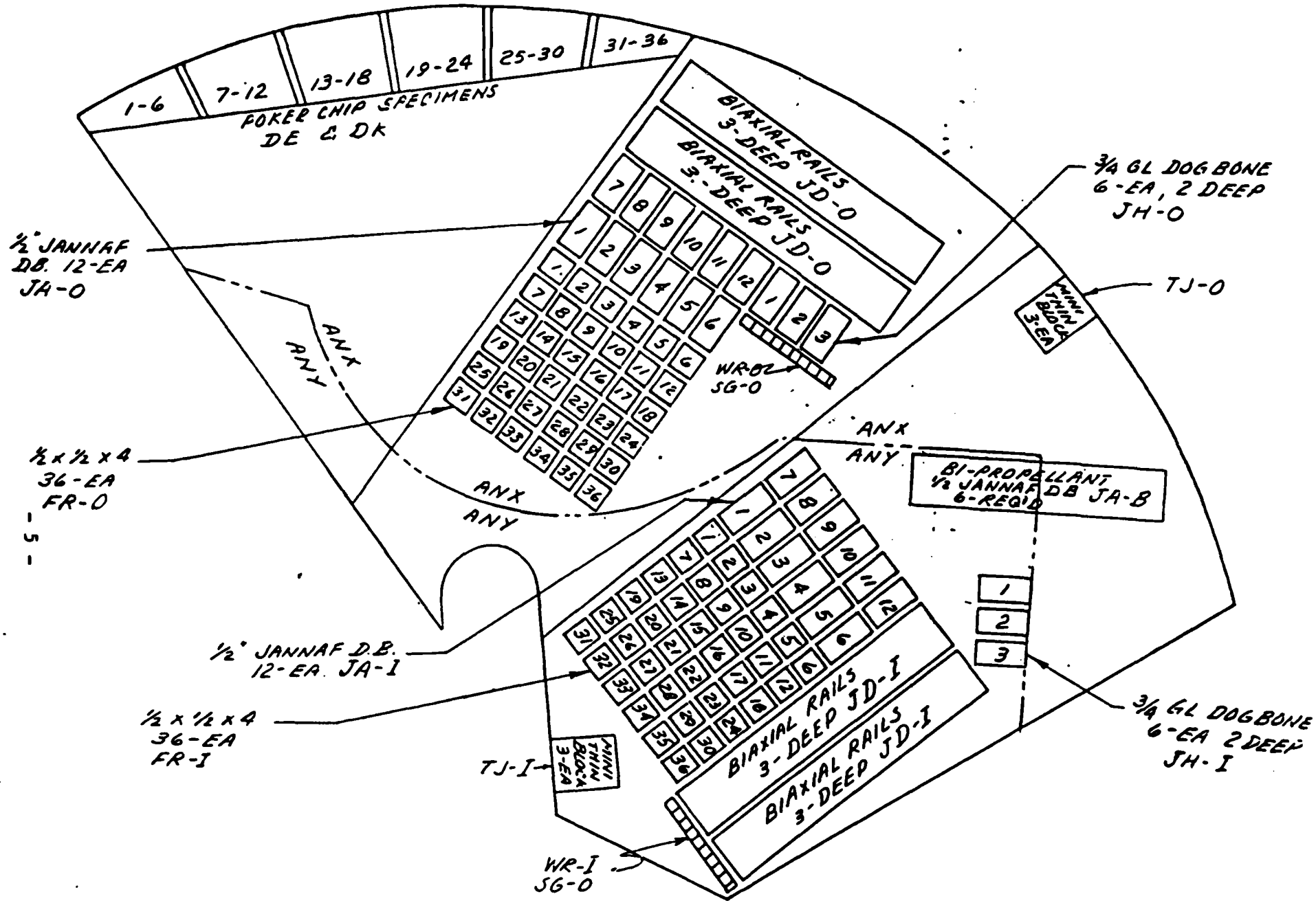


FIGURE 3: LGM-30 STAGE 2 DISSECTED MOTOR CUTTING PLAN,
Motor 0022123, Sec 2, Segments A, B, C, Upper

STATISTICAL ANALYSIS

This is the first time motor S/N 0022123 has been tested, therefore, comparisons are mostly of a descriptive nature. The data was collected and the means and standard deviations were calculated for each test. In addition, "F" and 't' tests were performed on hardness data for conditioned and unconditioned specimens (Table 13). These tests were accomplished on hardness data because if there were any differences in the data it would be statistically noticeably in the hardness data. The "F" and 't' tests were also used the last time motor S/N 0022687 was tested. The variance on the hardness data were not consistent with the variance from motor S/N 0022123. There was only one significant result for the hardness test whereas in the previous report there were three. It is suspected that factors other than conditioning were responsible for the large variation between hardness data in these two motors.

The multi-regressions in this report are included for visual display only. It should be noted that the last time motor S/N 0022687 was tested the specimens were conditioned. The relative humidity (RH) conditioning of test specimens were accomplished within $35 \pm 5\%$ RH for a minimum of 14 days for specimens up to 1/2 inch thick and 35 days from specimens over 1/2 inch thick. The last two mean points on the plots were conditioned at controlled humidity. The other data points represent uncontrolled humidity conditioning.

Mini-thin plots were used to observe the differences between blocks for selected slices and differences between blocks. The mini-thin program shows

a profile of the propellant slices obtained at 0.1 inch intervals. Inner and outer test observations of mini-thin values were made for five parameters, i.e., maximum stress, strain at maximum stress, strain at rupture, stress at rupture, and modulus. The parameters were plotted for five of the 10 slices, in particular slices at 0.1, 0.2, 0.3, 0.6, and 1.0 inches.

The mini-thin plots are not regressions, but show sample relation lines. The horizontal axis represents the consecutive 0.10 inch slices in their order of cut as listed in each plot title. Data symbols are used to differentiate and identify one slice from another. The data groups used in mini-thin testing are labeled as to the motor orientation they were obtained from.

The test mean values of motor S/N 0022123 are overlayed onto the multi-regression trend lines for motors S/N 0022135, S/N 0022583, S/N 0022788, and S/N 0022687. No inferences can be made from the multi-plots which are included for visual observation only.

DEFINITION OF THE MASTER STRESS RELAXATION CURVE

The master stress relaxation curve is a composite curve representing the behavior of a polymer over a wide range of time and temperature relationships. From a curve constructed at a given strain level, any combination of time and temperature can be used to determine a corresponding stress relaxation modulus.

DETERMINATION OF STRESS RELAXATION MODULUS USING A MASTER STRESS RELAXATION CURVE

From test data at a particular strain level, a polymer's stress relaxation modulus corresponding to any combination of time and temperature can be determined. The horizontal axis of the master stress relaxation plot is a logarithmic value (t/a_T), and the vertical axis is a linear value, E(t) 298/T, where E(t) is the stress relaxation modulus dependent on time. T is temperature in degrees Kelvin, a_T equals any relaxation time at temperature T divided by the corresponding time at the reference temperature (298 degrees Kelvin or 77°F), and 't' is relaxation time in seconds. The stress relaxation modulus for any combination of temperature and time can be determined by using the following steps:

a. For each stress relaxation plot there is associated a plot of temperature in degrees F versus log a_T. From this plot, determine log a_T corresponding to the temperature at which stress relaxation modulus is desired.

b. Determine log 't' or log of the desired stress relaxation time.

c. Determine log (t/a_T) by using the equation:

$$\log (t/a_T) = \log t - \log a_T.$$

d. Place the determined value of log (t/a_T) in the horizontal axis of the large plot and reference the master stress relaxation curve to determine the corresponding value E(t)298/T in the vertical axis.

e. Determine 298/T and divide into E(t)298T to find E(t), the stress relaxation modulus at the desired time and temperature.

TEST RESULTS

INTRODUCTION:

Testing in 1985 represents the first test period for motor S/N 0022123. Specimens were conditioned at controlled humidity 35 $\pm$ 5% as required by General Test Directive (GTD-2) Dissect Amendment 2, April 1984. Hardness was measured on the dog bone ends before and after conditioning.

In this report, multi-motor regression plots prepared from other dissected motor data are used to show the visual relationship of motor 0022123 to the other motors. As stated earlier, the motors cannot be statistically combined and data from motor S/N 0022123 was not incorporated in the data base for these plots. The newest motor (S/N 0022123) is merely overlayed on the plots generated for MAQCP Report 514(86) by the Symbol (◈).

A. UNIAXIAL TENSILE TESTS:

1. Very low rate tensile (0.0002 in/min CHS): Testing was not performed since the equipment was not functional during this test period. This applies to both inner and outer tests.

2. Low Rate Tensile:

a. OUTER: Data are listed in Table 1. Mean values are indicated on figures 4 thru 8. Motor S/N 0022123 (◈) was cast 63163 and motor S/N 0022135 (▣) was cast 63162. Strain at maximum stress and strain at rupture for motor S/N 0022123 appears to be closer to the data from motor S/N 0022135 than to the other dissected motors.

b. INNER: The mean values for all motors tested are indicated on figures 9 thru 13. Similarity to motor S/N 0022135 is even more noticeable for inner propellant. Whether this relationship continues depends on results from follow-up testing.

B. BIAXIAL TENSILE TEST:

Data are listed on Table 2.

OUTER: The mean values are indicated on figures 14 thru 18. Strain values are outside the 90-90 band of the multi-motor regressions, again showing a similarity to motor S/N 0022135.

INNER: The mean values for all motors tested are indicated on figures 19 thru 23. Maximum stress and modulus for motor S/N 0022123 is above the regression line as compared to all points for S/N 0022135 (figures 19 and 23). Strain at maximum stress and strain at rupture for motor S/N 0022123 is below the regression line as is S/N 0022135 (figures 20 and 22).

C. HIGH RATE HYDROSTATIC TEST:

Data are listed on Table 2.

OUTER: The mean values for all motors tested are indicated on figures 24 thru 28. Except for strain at maximum stress and strain at rupture (figures 25 and 27) which are well below the regression line; motor S/N 0022123 values falls just below the regression line on the multi-motor plots.

INNER: The mean values for all motors tested are indicated on figures 29 thru 33. The similarity between motors S/N 0022135 and S/N 0022123 is apparent for strain at maximum stress and strain at rupture.

D. MINI-THIN TENSILE:

Mini-thin tensile specimens are cut from the case and bore areas as shown in figure 3. The blocks were not conditioned and specimens were tested the day after being cut to 0.1 inch slices. The values for each block are plotted as shown in figures 34 thru 43. The values are not consistent as no pattern is apparent for either inner or outer propellant. There is a difference in mean values and standard deviations for each block (Tables 4 thru 8).

In an effort to determine any similarities among slices, the position within the block, values were plotted for each parameter. These plots are shown in figures 44 thru 53. Again no pattern is apparent.

E. STRESS RELAXATION:

The master stress relaxation curves are shown in figures 54 and 55. The master curve is flatter than the curves which had test temperatures below 0°F. Table 9 lists the mean values. The points are indicated on figures 56 thru 63. Inner propellant from motor S/N 0022123 is above the regression line of the multi-motor plots. The data from motor S/N 0022135 is completely above the trend line for both inner and outer testing. None of the other motors tested show data above the regression trend line.

F. THERMAL COEFFICIENT OF LINEAR EXPANSION: (TCLE)

Table 10 lists the data, means, and standard deviations. Figures 64 thru 69 shows data from all of the motors are scattered including motor S/N 0022123. The point is not consistently above nor below the regression slope line.

G. HARDNESS:

The tensile specimens were tested for hardness when first machined. After conditioning at 35 $\pm$ 5% RH, hardness readings were taken a second time. These data are listed in Table 11. There is a significant difference between the means of 10 sec readings on inner propellant (Table 13). The data are indicated on figures 70 and 71.

H. BOND PROPERTIES:

SHEAR: Poker chip specimens which are 2 inches in diameter with the Avcoat removed, were tested under 500 psi at 2 in/min and 20 in/min. The data are listed in Table 14. Failure mode at the lower speed is mostly caused due to the peeling of liner from propellant with failure in the propellant layer and minimally in the liner. At 20 in/min failure is chiefly in the propellant, with some failure in the liner and between liner and insulation.

CONSTANT LOAD TENSILE: Sleeved tensile specimens (2 inch diameter with fillet to reduce diameter to 1.5 inch) are tested with varying loads to cause failure at different times. When log stress is plotted vs log time, an equation is derived which gives failure loads at specific times. The data are listed in Table 14.

I. MISCELLANEOUS PROPERTIES:

Chemical properties on liner and insulation were not determined. These tests will be done on material from the forward dome which was not available during this test period.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSION:

1. The most striking aspect of testing this motor is the apparent relationship to motor S/N 0022135. The relationship is visual, since no numerical inferences can be drawn with only one set of data. Moreover, since motor S/N 0022123 was approximately 21 years old when first dissected there can be no age correlations.

2. Only hardness testing had data from specimens which were tested before and after conditioning. Statistically, one of four parameters was significant. However, the next test period will use specimens which are unconditioned and conditioned. These specimens will not be from locations stipulated in the test plan nor will numbers be the same as required due to insufficient propellant.

RECOMMENDATIONS:

Continued testing of motor S/N 0022123 is needed to determine if the aging pattern is similar to that of motor S/N 0022135 or if it resembles one of the other motors in the (RSLP) program. The main need for continued testing is to help determine if these motors are capable of supporting the flight programs in the late 80's and early 90's.

TABLE 1

LOW RATE TENSILE
2 IN/MIN, NO PRESSURE EGL 3.00

	Maximum Stress	Strain at Max	Stress at Rupture	Strain at Rupture	Modulus
Outer,					
	112.5	0.314	81.9	0.576	934
	114.4	0.309	84.2	0.553	949
	114.5	0.314	83.0	0.570	851
	116.3	0.309	84.9	0.571	856
	117.5	0.311	89.6	0.571	864
	120.3	0.307	93.3	0.540	880
$\bar{X}$ =	115.92	0.3107	86.15	0.5595	889.0
S.D. =	2.751	0.00288	4.390	0.01479	42.1046
Inner,					
	141.4	0.399	118.7	0.656	840
	141.2	0.395	121.4	0.571	835
	139.1	0.388	116.8	0.615	890
	139.5	0.387	112.6	0.654	863
	139.4	0.383	125.0	0.541	870
$\bar{X}$ =	140.12	0.3904	118.90	0.6074	859.60
S.D. =	1.089	0.0065	4.6797	0.05081	22.5455

TABLE 2

LOW RATE BIAXIAL
0.2 "/min, No pressure, EGL 1.75
Motor 0022123

	Maximum Stress	Strain at Max	Stress at Rupture	Strain at Rupture	Modulus
Outer					
	108.5	0.267	89.2	0.384	655
	108.7	0.233	93.3	0.350	823
	108.4	0.229	89.0	0.366	855
	111.0	0.248	95.0	0.366	752
	110.2	0.233	89.7	0.374	848
	109.0	0.232	89.9	0.373	850
$\bar{X}$ =	109.30	0.2403	91.02	0.3628	797.2
S.D. =	1.058	0.01466	2.507	0.00136	79.55
Inner					
	129.9	0.353	118.1	0.452	586
	130.1	0.346	118.4	0.452	614
	128.7	0.346	114.0	0.484	580
	130.5	0.357	118.7	0.441	586
	130.1	0.350	115.8	0.462	601
	129.5	0.360	117.3	0.481	572
$\bar{X}$ =	129.80	0.3520	117.05	0.4620	589.8
S.D. =	.629	0.00576	1.821	0.01724	15.18

TABLE 3

HIGH RATE HYDROSTATIC
1750 in/min, 500 psi, EGL 1.75
Motor S/N 0022123

	Max Stress	E_m	Stress at Rupture	E_r	Modulus
Outer					
	603.1	.332	562.2	.460	5725
	610.4	.332	575.0	.442	5656
	601.5	.316	571.2	.431	5818
	600.4	.308	575.8	.404	6379
	609.5	.294	576.0	.395	6584
	618.4	.291	592.0	.381	6778
$\bar{X}$ =	607.22	.3122	575.37	.4188	6156.3
S.D. =	6.8776	.01787	9.676	.03033	483.806
Inner					
	717.3	.382	674.3	0.533	6569
	718.0	.388	663.3	.579	6748
	718.1	.376	682.1	.508	7451
	716.7	.379	689.1	.475	6728
	725.6	.390	686.6	.549	6826
	717.2	.379	673.7	.535	6356
$\bar{X}$ =	718.82	.3823	678.20	.5298	6779.7
S.D. =	3.3642	.0055	9.6358	.03551	368.885

TABLE 4

MINITHIN MAXIMUM STRESS

Outer block Slice	1	2	3	4
1	120.8	109.6	116.1	130.9
2	119.2	130.4	117.9	132.9
3	120.4	127.3	118.1	131.5
4	112.5	128.2	122.9	128.1
5	119.8	126.1	124.0	128.8
6	119.4	131.0	127.0	127.0
7	121.2	129.9	129.2	132.6
8	120.2	130.3	124.5	132.9
9	121.8	129.9	126.9	132.2
A	122.4	130.8	127.0	136.5
B	121.5	132.6	133.7	130.3
C	120.1	128.8	132.2	131.7
D	121.4	128.8	135.4	128.3
E	122.9	128.0	132.8	129.3
F	121.0	124.9	136.2	
$\bar{X}$ =	120.31	127.77	126.93	130.93
S.D. =	2.40222	5.40561	6.427788	2.51256

Inner block Slice	1	2	3	4	5
1	103.5	139.0	133.2	136.6	141.1
2	147.0	139.5	137.5	144.8	136.9
3	140.5	133.9	136.2	139.7	144.1
4	137.6	132.8	138.1	137.7	136.5
5	135.4	133.9	136.6	136.0	133.7
6	133.8	136.0	131.9	135.6	141.3
7	137.6	140.7	133.7	136.0	132.3
8	137.1	133.2	136.1	138.3	146.3
9	144.7	126.6	144.8	138.4	142.7
A	118.9	NO DATA	NO DATA	138.3	136.3
B				137.8	155.8
C				139.8	132.8
D				139.6	139.7
E				138.4	140.2
F				139.2	
$\bar{X}$ =	133.7	135.07	136.45	138.41	139.98
S.D. =	13.101484	4.34108	3.75137	2.23858	6.21922

TABLE 5

MINI-THIN STRAIN AT MAX STRESS

Outer block Slice	1	2	3	4
1	.422	.343	.349	.377
2	.434	.378	.393	.397
3	.429	.386	.376	.398
4	.316	.392	.381	.404
5	.403	.370	.391	.396
6	.403	.394	.391	.374
7	.413	.399	.407	.385
8	.412	.396	.388	.401
9	.401	.389	.382	.395
A	.404	.396	.391	.406
B	.404	.393	.396	.396
C	.409	.395	.404	.401
D	.406	.396	.398	.385
E	.403	.392	.407	.401
F	.386	.353	.394	———
$\bar{X}$ =	.4030	.3848	.38987	.3940
S.D. =	.0268435	.0168722	.0144611	.009907

Inner block Slice	1	2	3	4	5
1	(0.251)	0.532	0.503	0.549	0.491
2	0.584	0.558	0.557	0.551	0.547
3	0.558	0.557	0.550	0.551	0.546
4	0.602	0.601	0.604	0.580	0.579
5	0.647	0.630	0.641	0.635	0.623
6	0.642	0.623	0.642	0.660	0.655
7	0.620	0.570	0.637	0.661	0.690
8	0.593	0.576	0.570	0.633	0.584
9	0.495	0.478	0.521	0.575	0.480
A	(0.295)			0.664	0.431
B				0.600	0.419
C				0.619	0.364
D				0.594	0.433
E				0.544	0.442
F	———	———	———	0.626	———
$\bar{X}$ =	.5926	.5694	.5806	.6028	.5263
S.D. =	.004933	.046936	.052828	.0433016	.0994429

( ) not used in calculations

TABLE 6
MINI-THIN
STRESS AT RUPTURE

Outer block Slice	1	2	3	4
1	105.0	99.8	106.9	118.0
2	113.3	115.3	102.5	121.5
3	113.6	109.6	105.1	119.4
4	109.6	110.7	112.9	109.7
5	108.8	113.9	103.9	119.7
6	109.3	116.2	112.2	119.7
7	103.7	115.8	116.0	123.4
8	112.0	118.5	109.9	115.5
9	113.2	118.9	114.5	118.0
A	107.6	122.8	116.6	118.2
B	105.9	121.2	125.4	119.4
C	111.2	113.8	120.5	114.2
D	107.2	120.1	120.6	115.7
E	108.3	115.4	118.4	120.6
F	117.0	117.7	119.7	
$\bar{X}$ =	109.71333	115.31333	113.67333	118.07143
S.D. =	3.658428	5.6203542	6.87734	3.4273624

Inner block Slice	1	2	3	4	5
1	97.7	129.2	128.1	128.1	138.5
2	143.8	127.7	126.8	134.3	131.6
3	138.3	122.6	129.4	129.6	136.7
4	132.9	121.7	129.7	130.2	126.6
5	128.7	126.7	129.6	128.0	127.9
6	125.5	128.5	126.6	131.3	125.3
7	128.8	136.1	124.8	127.7	124.6
8	130.8	127.2	130.8	130.8	139.3
9	136.8	122.2	139.8	125.5	136.9
A				125.5	126.4
B				121.5	138.2
C				121.2	128.7
D				125.9	124.9
E				127.1	125.1
F				120.3	
$\bar{X}$ =	129.25556	126.87778	129.51111	127.133	131.47857
S.D. =	13.116317	4.48355	4.2951846	3.965506	5.740032

TABLE 7

MINITHIN STRAIN AT RUPTURE

Outer block Slice	1	2	3	4
1	.485	.409	.416	.474
2	.492	.482	.534	.487
3	.539	.525	.472	.496
4	.334	.531	.472	.543
5	.505	.443	.537	.466
6	.550	.501	.523	.419
7	.566	.509	.515	.466
8	.495	.478	.509	.530
9	.477	.471	.481	.503
A	.528	.466	.470	.523
B	.540	.490	.457	.487
C	.499	.507	.484	.530
D	.521	.465	.502	.482
E	.544	.488	.510	.479
F	.429	.395	.508	
$\bar{X}$ =	.5002667	.4773	.492667	.4917857
S.D. =	.0576956	.0385814	.0324162	.0327113

Inner block Slice	1	2	3	4	5
1	.277	.661	.580	.662	.516
2	.633	.711	.677	.684	.631
3	.603	.707	.656	.697	.628
4	.666	.758	.737	.691	.720
5	.742	.741	.760	.753	.680
6	.773	.722	.724	.724	.720
7	.734	.612	.769	.756	.801
8	.675	.655	.633	.734	.646
9	.575	.533	.551	.727	.546
A				.664	.543
B				.600	.575
C				.619	.384
D				.594	.578
E				.544	.575
F				.626	
$\bar{X}$ =	.62422	.67767	.676333	.671666	.610214
S.D. =	.162412	.071016	.0781185	.063841	.103631

TABLE 8

MINITHIN MODULUS

Outer block Slice	1	2	3	4
1	696	691	751	867
2	687	777	831	907
3	660	790	853	876
4	748	709	854	880
5	691	801	910	769
6	749	720	930	762
7	573	645	811	948
8	620	734	754	813
9	808	746	811	836
A	712	753	817	869
B	760	831	788	862
C	715	760	845	862
D	768	783	862	895
E	772	770	706	775
F	784	839	800	___
$\bar{X}$ =	715.53	756.60	821.53	851.5
S.D. =	63.6496	51.9035	58.9356	54.6707

Inner block Slice	1	2	3	4	5
1	899	842	746	793	877
2	663	647	621	744	622
3	706	707	671	689	615
4	626	625	687	722	632
5	532	676	679	620	574
6	608	669	589	599	646
7	666	696	590	585	608
8	514	583	498	596	680
9	823	590	692	735	857
A	782			732	848
B				852	1038
C				830	828
D				745	893
E				827	844
F	___	___	___	673	___
$\bar{X}$ =	620.9	670.56	641.44	672.13	754.43
S.D. =	230.63364	77.6098	74.3625	187.2202	144.2779

TABLE 9

STRESS RELAXATION MODULUS
3% Strain, Mean Values

OUTER

Temp		10 sec	50 sec	100 sec	1000 sec
0°F	$\bar{X}$	3999.2	2272.2	1853.8	1068.0
	S.D.	197.25	124.41	100.60	54.53
20°F	$\bar{X}$	1775.5	1082.2	916.8	578.5
	S.D.	80.24	36.02	25.76	20.42
40°F	$\bar{X}$	1150.3	740.0	644.7	426.3
	S.D.	70.84	50.60	43.08	35.75
77°F	$\bar{X}$	618.5	457.50	416.7	328.3
	S.D.	31.70	24.84	22.32	17.69
120°F	$\bar{X}$	469.8	386.7	361.3	301.0
	S.D.	23.32	196.86	18.97	14.98
160°F	$\bar{X}$	396.5	333.8	314.8	242.2
	S.D.	17.03	14.73	11.30	7.05

INNER

0°F	$\bar{X}$	4272.8	2420.0	1971.8	1052.0
	S.D.	249.85	135.98	109.13	67.78
20°F	$\bar{X}$	1833.5	1094.0	917.3	555.7
	S.D.	72.08	45.68	44.32	42.19
40°F	$\bar{X}$	1119.8	701.2	595.7	376.5
	S.D.	34.0	19.93	18.66	30.33
77°F	$\bar{X}$	583.2	421.8	381.3	293.7
	S.D.	9.97	7.68	7.15	5.78
120°F	$\bar{X}$	416.3	334.0	312.5	273.33
	S.D.	23.42	18.28	15.89	3.90
160°F	$\bar{X}$	357.77	298.8	280.0	2.36
	S.D.	30.48	26.17	23.74	14.30

TABLE 10

TCLE
Motor 0022123

	Tg	Before Tg	After Tg
Outer			
	-58	5.63	11.26
	-50	5.95	11.11
	-54	5.33	11.22
	-58	5.42	11.89
	-59	5.00	10.70
	-58	5.80	11.49
$\bar{X}$ =	-56.17	5.5217	11.2783
S.D. =	3.488	.34406	.39635
Inner			
	-56	6.51	11.81
	-58	6.55	10.43
	-56	6.51	11.52
	-59	5.95	10.25
	-61	6.03	10.85
	-59	6.03	10.62
$\bar{X}$ =	-58.17	6.263	10.913
S.D. =	1.94	.2867	.6222

TABLE 11
HARDNESS
SHORE A
Motor S/N 0022123

	Initial Unconditioned	Conditioned	10 sec Unconditioned	Conditioned
Outer				
	74	73	66	65
	74	74	65	65
	76	75	69	68
	74	76	69	67
	77	74	68	66
	75	77	67	69
	76	74	68	66
	74	76	66	68
	75	74	66	66
	75	75	67	65
	77	72	71	64
	75	74	67	67
Inner				
	74	77	66	65
	75	76	67	65
	74	72	65	65
	77	74	65	65
	73	72	66	64
	72	74	65	66
	75	75	67	66
	76	73	67	65
	73	73	65	65
	75	74	65	66
	73	71	65	63
	75	72	67	64

TABLE 12

HARDNESS
Shore A
Motor S/N 0022123

	N	$\bar{X}$	Std Der
Outer, Initial Unc	12	75.2	1.1146
Initial Cond	12	74.5	1.3817
10 sec Unc	12	67.4	1.6765
10 sec Cond	12	66.3	1.4975
Inner, Initial Unc	12	74.3	1.1435
Initial Cond	12	73.6	1.7816
10 sec Unc	12	65.8	.9374
10 sec Cond	12	64.9	.9003

TABLE 13

HARDNESS DATA

Data Comparison F and T Tests
at the 5% Significance Level
Nr. Samples = 12 in all tests

Unconditioned	Mean	SD	Conditioned	Mean	SD	Cal F	DF1	DF2	Cal T	DF	Results
Outer Init	75.17	1.11	Outer Init	74.50	1.38	1.537	11	11	-1.307	22	NS
Outer 10 sec	67.42	1.68	Outer 10 sec	66.33	1.50	1.253	11	11	1.680	22	NS
Inner Init	74.33	1.44	Inner Init	73.58	1.78	1.540	11	11	-1.136	22	NS
Inner 10 sec	65.83	0.94	Inner 10 sec	64.92	0.90	1.084	11	11	2.425	22	S/T

NOTE: The T-Test is not applicable when the F-Test shows a significant difference

F-Test compares the variance within data groups

T-Test compares the means between data groups

S = significant difference

NS = non-significant difference

TABLE 14

BOND PROPERTIES

Bond Shear (Avcoat Removed)	Max Stress
2 in/min	149.7 psi
	152.7 psi
20 in/min	225.0 psi
	206.9 psi
	203.5 psi

Constant Load Tensile

Load (psi)	Log Stress	Time (min)	Log Time
67.66	1.8303	2.127	0.3278
73.32	1.8652	.90	-0.4576
62.05	1.7927	3.117	0.4937
56.51	1.7521	6.283	0.7982
45.53	1.6582	16.017	1.2046
51.08	1.7083	10.61	1.0257
28.89	1.4607	810.0	2.9085
39.98	1.6018	50.0	1.6990
25.50	1.4065	540.0	2.7324

Failure Load at 1 min = 71.04
Failure Load at 10 min = 50.53
Failure Load at 100 min = 35.94

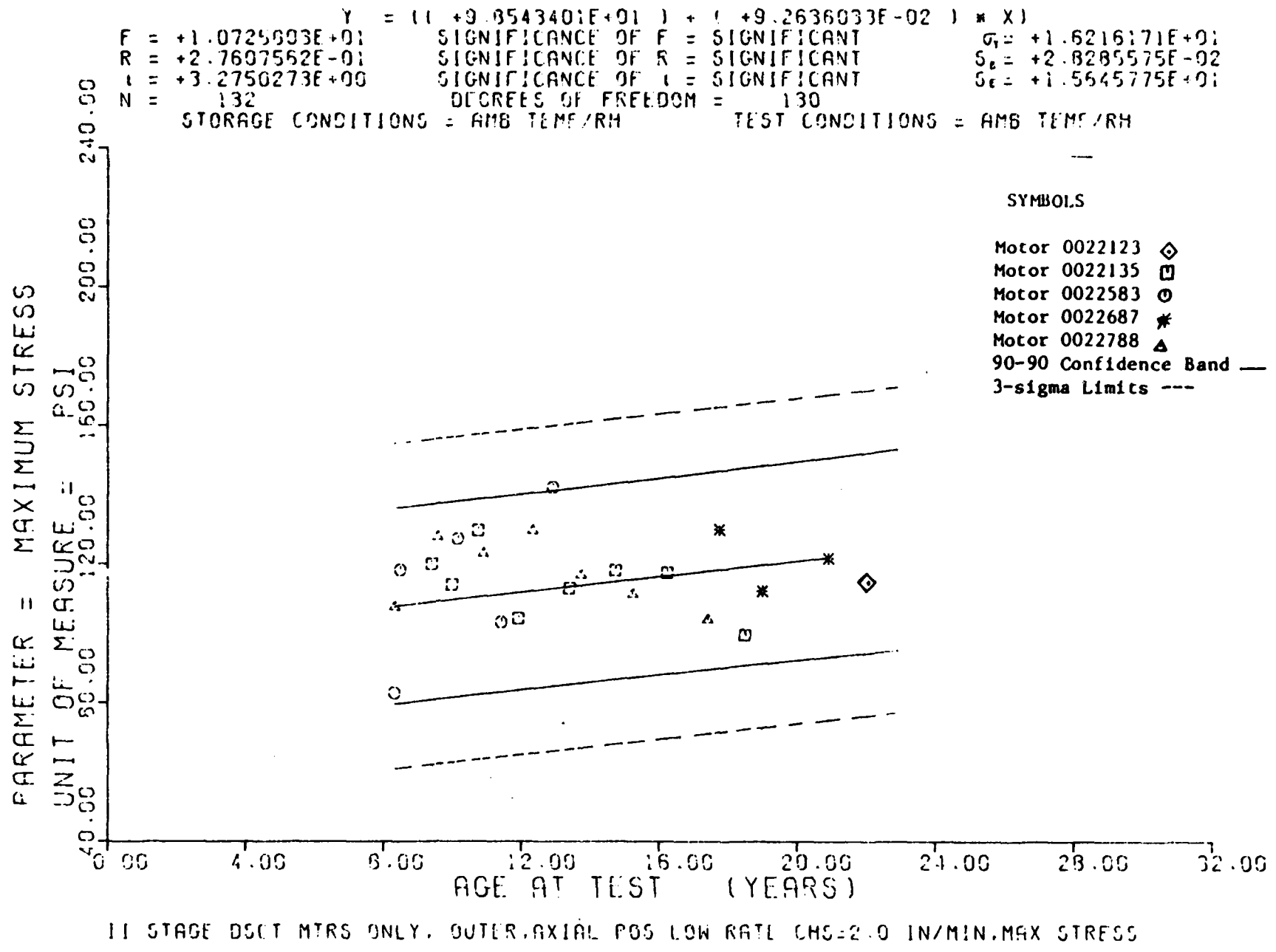

Y = (+9.8543401E+01) + (+9.2636033E-02) * X)
F = +1.0725603E+01 SIGNIFICANCE OF F = SIGNIFICANT σ1 = +1.6216171E+01
R = +2.7607562E-01 SIGNIFICANCE OF R = SIGNIFICANT Sb = +2.8285575E-02
t = +3.2750273E+00 SIGNIFICANCE OF t = SIGNIFICANT Se = +1.5545775E+01
N = 132 DEGREES OF FREEDOM = 130
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MAXIMUM STRESS
UNIT OF MEASURE = PSI
40.00
80.00
120.00
160.00
200.00
240.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS ONLY, OUTER,AXIAL POS LOW RATE CHS=2.0 IN/MIN,MAX STRESS

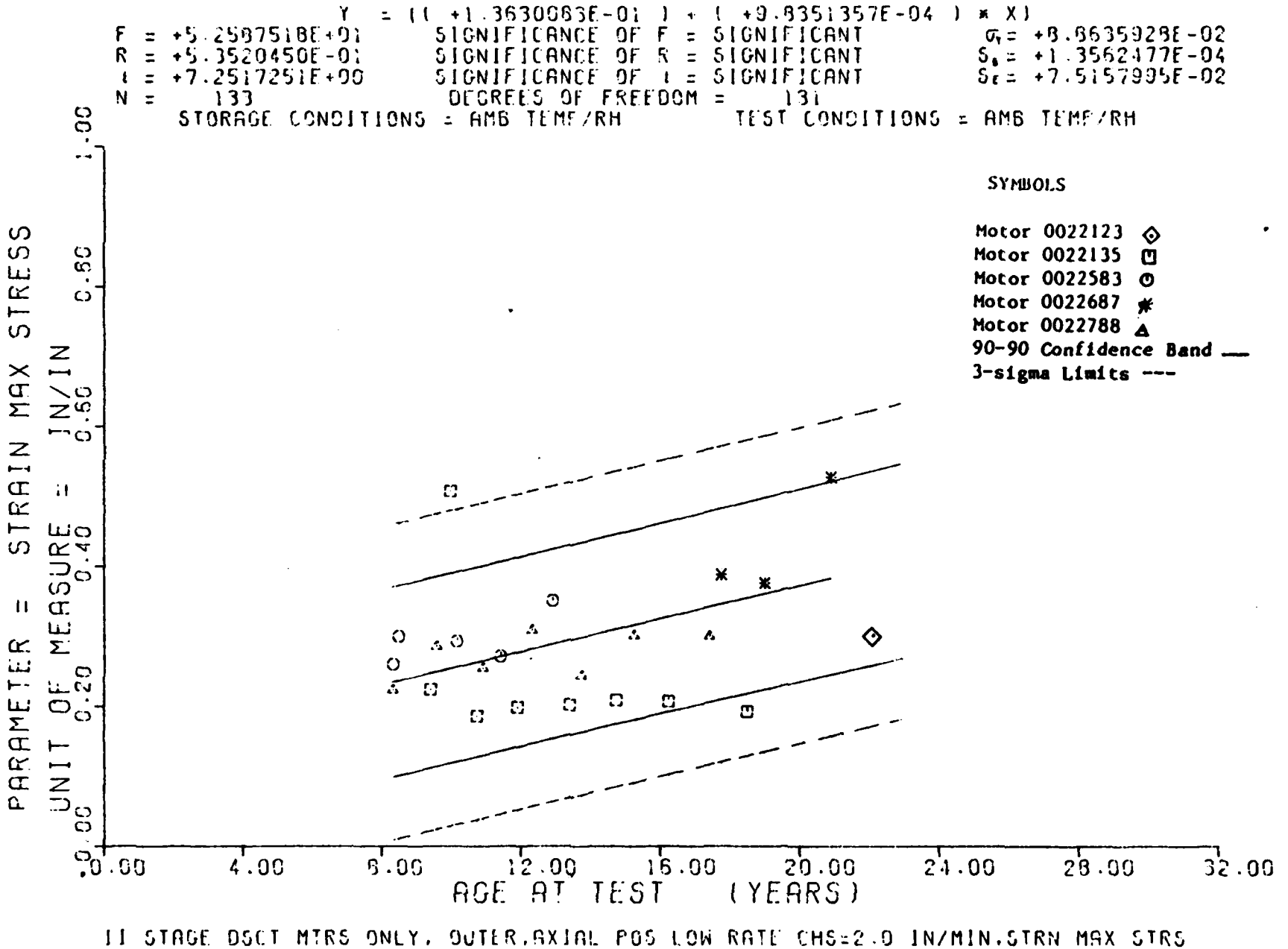
Figure 4

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	38	+9.5118408E+01	+1.3037593E+01	+1.1506000E+02	+7.6000000E+01	+1.0780693E+02
102.0	3	+1.1833332E+02	+1.5275252E+00	+1.2000000E+02	+1.1700000E+02	+1.0799226E+02
113.0	19	+1.2002627E+02	+1.2070778E+01	+1.3506000E+02	+9.5000000E+01	+1.0991126E+02
115.0	4	+1.2783996E+02	+1.2918889E+00	+1.2962998E+02	+1.2666999E+02	+1.0919653E+02
120.0	3	+1.1400325E+02	+6.0584702E+00	+1.1750000E+02	+1.0700999E+02	+1.0965971E+02
122.0	4	+1.2726489E+02	+1.2461648E+00	+1.2857998E+02	+1.2614999E+02	+1.0984498E+02
129.0	4	+1.2571240E+02	+8.4571722E-01	+1.3075000E+02	+1.2003999E+02	+1.1049343E+02
131.0	3	+1.2301992E+02	+7.1236251E-01	+1.2377999E+02	+1.2240998E+02	+1.1067871E+02
137.0	3	+1.0322329E+02	+2.1904902E+00	+1.0519999E+02	+1.0086999E+02	+1.1123452E+02
143.0	4	+1.0432455E+02	+9.7243835E+00	+1.1617999E+02	+9.4009994E+01	+1.1179034E+02
148.0	3	+1.2569985E+02	+2.6765109E+00	+1.3144999E+02	+1.2669998E+02	+1.1225352E+02
155.0	3	+1.4210993E+02	+8.1295019E+00	+1.5122999E+02	+1.3563998E+02	+1.1291197E+02
161.0	3	+1.1301660E+02	+1.7623937E+00	+1.1472999E+02	+1.1131998E+02	+1.1345779E+02
165.0	3	+1.1680664E+02	+7.2316964E+00	+1.2160998E+02	+1.0849999E+02	+1.1382933E+02
177.0	2	+1.1819499E+02	+9.9657917E-01	+1.1889999E+02	+1.1748999E+02	+1.1493997E+02
183.0	3	+1.1125991E+02	+6.7800516E-01	+1.1188999E+02	+1.1056999E+02	+1.1549578E+02
195.0	3	+1.1753327E+02	+2.9695596E+00	+1.2029998E+02	+1.1439999E+02	+1.1661742E+02
209.0	6	+1.0392996E+02	+1.9648210E+00	+1.0669999E+02	+1.0094999E+02	+1.1791432E+02
213.0	6	+1.2592324E+02	+1.2813519E+01	+1.4037998E+02	+1.0767999E+02	+1.1837487E+02
222.0	3	+9.5489990E+01	+3.4954589E+00	+1.0325000E+02	+9.6339996E+01	+1.1910850E+02
228.0	6	+1.1295663E+02	+7.7160372E+00	+1.2400000E+02	+1.0412999E+02	+1.1966441E+02
251.0	6	+1.2156660E+02	+7.3711455E+00	+1.3386999E+02	+1.1471999E+02	+1.2179504E+02

II STAGE DSCT MTRS ONLY, OUTER,AXIAL PCS,LOW RATE CPS=2.0 IN/MIN,MAX STRESS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R = +5.3520450E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +7.2517251E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 133 DEGREES OF FREEDOM = 131
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN MAX STRESS
UNIT OF MEASURE = IN/IN
0.00
0.20
0.40
0.60
0.80
1.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS ONLY, OUTER,AXIAL POS LOW RATE CHS=2.0 IN/MIN,STRN MAX STRS

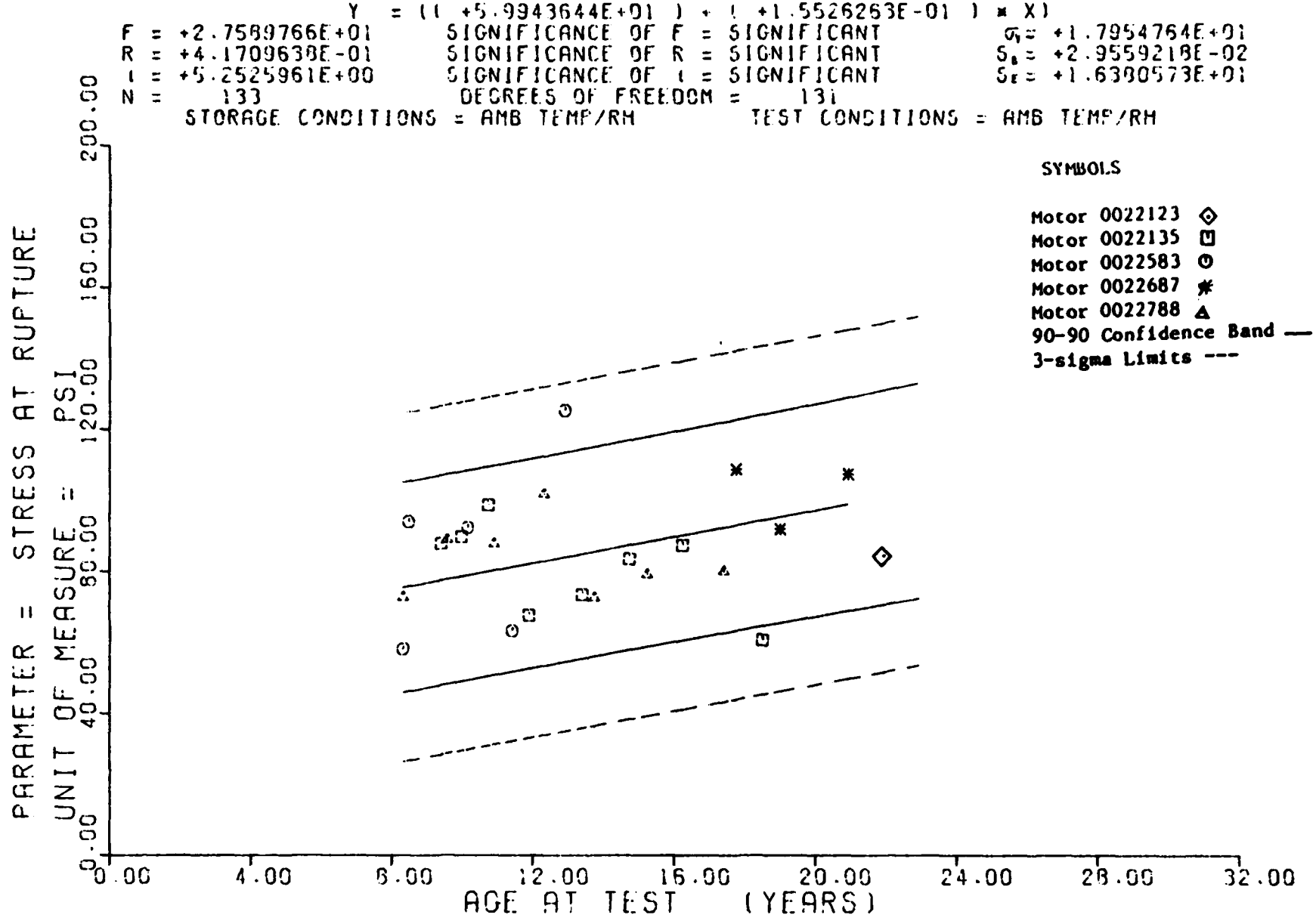
Figure 5

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	38	+2.4192059E-01	+2.7339267E-02	+3.0199998E-01	+2.0399999E-01	+2.7465216E-01
102.0	3	+2.9999995E-01	+7.2092209E-03	+3.0599999E-01	+2.9199999E-01	+2.8661917E-01
113.0	19	+2.8415739E-01	+5.2107587E-02	+3.1199997E-01	+1.7999994E-01	+2.8743783E-01
115.0	4	+2.8562474E-01	+1.3310811E-02	+2.9999995E-01	+2.6349997E-01	+2.8948484E-01
120.0	3	+5.0699961E-01	+4.5216133E-02	+5.5899995E-01	+4.7699999E-01	+2.8432240E-01
122.0	4	+2.9304981E-01	+1.1872916E-02	+3.0929994E-01	+2.8329998E-01	+2.8628049E-01
129.0	4	+1.8669994E-01	+2.3971085E-03	+1.8889999E-01	+1.8329995E-01	+2.8317495E-01
131.0	3	+2.8493329E-01	+1.0233609E-02	+2.6669996E-01	+2.4899998E-01	+2.8514106E-01
137.0	3	+2.7159994E-01	+1.2343949E-02	+2.8519999E-01	+2.6109999E-01	+2.7104216E-01
143.0	4	+1.9832491E-01	+1.6307588E-02	+2.1779996E-01	+1.7899996E-01	+2.7664326E-01
148.0	3	+3.0836659E-01	+8.5537951E-03	+3.1369996E-01	+2.9849994E-01	+2.8196082E-01
155.0	3	+3.5083323E-01	+2.2414937E-02	+3.7369996E-01	+3.2889997E-01	+2.9874549E-01
161.0	3	+2.0213329E-01	+7.1597390E-03	+2.0869994E-01	+1.9449996E-01	+2.9464659E-01
165.0	3	+2.4396663E-01	+2.8091217E-02	+2.7639997E-01	+2.2729998E-01	+2.9859052E-01
177.0	3	+2.0883327E-01	+1.9074678E-03	+2.1099996E-01	+2.0739996E-01	+3.1038225E-01
183.0	3	+3.0129992E-01	+1.7667638E-02	+3.2089996E-01	+2.8659999E-01	+3.1629395E-01
195.0	3	+2.0699995E-01	+2.6446479E-03	+2.0899999E-01	+2.0399999E-01	+3.2809595E-01
209.0	6	+3.0003309E-01	+1.0969241E-02	+3.1919997E-01	+2.8889995E-01	+3.4185516E-01
213.0	6	+3.0771641E-01	+4.1999582E-02	+4.2119997E-01	+3.1359994E-01	+3.4578919E-01
222.0	3	+1.9256663E-01	+1.2901911E-02	+2.0559996E-01	+1.7979997E-01	+3.5464084E-01
228.0	6	+3.7579965E-01	+1.3540731E-02	+3.9279997E-01	+3.5189998E-01	+3.6054189E-01
251.0	6	+5.2653276E-01	+6.1687340E-02	+6.4809995E-01	+4.8669999E-01	+3.8316273E-01

II ST GE DSCT NTRS CNLY, OUTER, AXIAL FCS, LOW RATE CHS=2.0 IN/MIN, STRN MAX STRS.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R = +4.1709638E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +5.2525961E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 133 DEGREES OF FREEDOM = 131
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS AT RUPTURE
UNIT OF MEASURE = PSI
0.00
40.00
80.00
120.00
160.00
200.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS ONLY, OUTER,AXIAL POS LOW RATE CHS=2.0 IN/MIN,STRESS/RUPTURE

Figure 6

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	38	+6.5431564E+01	+1.0385391E+01	+8.5000000E+01	+4.8000000E+01	+7.5469994E+01
102.0	3	+9.4000000E+01	+5.2915026E+00	+9.8000000E+01	+8.8000000E+01	+7.5780426E+01
113.0	19	+8.7915771E+01	+7.2762262E+00	+1.0700009E+02	+7.9000000E+01	+7.7488311E+01
115.0	4	+8.8924926E+01	+8.0601562E+00	+9.4069992E+01	+7.6900988E+01	+7.7769843E+01
120.0	3	+8.9833328E+01	+5.3928965E+00	+9.6000000E+01	+8.6000000E+01	+7.8575140E+01
122.0	4	+9.2359985E+01	+7.7020780E+00	+1.0037998E+02	+8.3750000E+01	+7.8895681E+01
129.0	4	+9.8669921E+01	+1.6995838E+00	+1.0116999E+02	+9.7419998E+01	+7.9972519E+01
131.0	3	+8.7653271E+01	+2.7745584E+00	+9.0559997E+01	+8.5019989E+01	+8.0287375E+01
137.0	3	+8.3279983E+01	+5.9472554E+00	+8.8869995E+01	+7.7029998E+01	+8.1214614E+01
143.0	4	+8.7639953E+01	+1.0461907E+01	+9.6799987E+01	+7.5079986E+01	+8.2146194E+01
148.0	3	+1.0179328E+02	+7.4247771E+00	+1.0729998E+02	+9.3340000E+01	+8.2932509E+01
155.0	3	+1.2539331E+02	+8.5418390E-01	+1.2636999E+02	+1.2481999E+02	+8.4090338E+01
161.0	3	+7.3473312E+01	+1.1862183E+01	+8.1909988E+01	+5.9999988E+01	+8.4944017E+01
165.0	3	+7.2589981E+01	+1.5099634E+00	+7.4209991E+01	+7.1219985E+01	+8.5561965E+01
177.0	3	+8.3639984E+01	+4.5680272E+00	+8.8509994E+01	+7.9449996E+01	+8.7425125E+01
183.0	3	+7.5166645E+01	+7.3836939E+00	+8.5689987E+01	+7.1159988E+01	+8.8356704E+01
195.0	3	+8.7433258E+01	+2.0774662E+01	+1.0099599E+02	+6.9299997E+01	+9.0219848E+01
209.0	6	+8.0108276E+01	+6.5942678E+00	+8.6799987E+01	+6.8000000E+01	+9.2303524E+01
213.0	6	+1.0877990E+02	+1.5596453E+01	+1.2275999E+02	+8.2599990E+01	+9.3014572E+01
222.0	3	+6.0766662E+01	+6.5167717E+00	+6.3699996E+01	+5.6099000E+01	+9.4411941E+01
228.0	6	+9.1986572E+01	+9.6005258E+00	+1.0654998E+02	+8.4699996E+01	+9.5343521E+01
251.0	6	+1.0738159E+02	+8.0534149E+00	+1.1745999E+02	+9.5029998E+01	+9.9014554E+01

II STAGE DSCT MTRS CNLY, OUTER,AXIAL PCS,LOW RATE CPS=2.0 IN/MIN,STRESS/RUPTURE

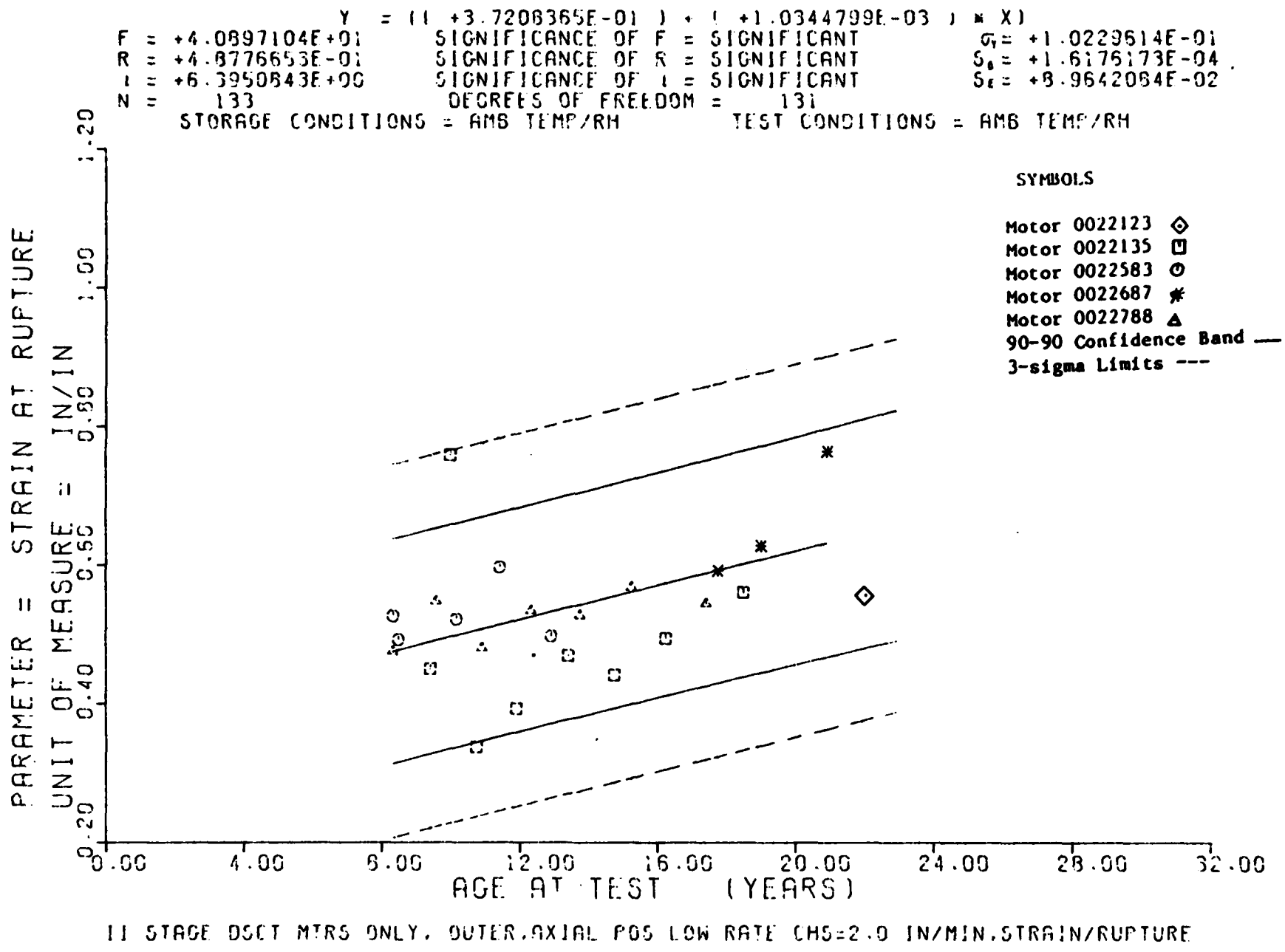

Y = (+3.7208365E-01) + (+1.0344799E-03) * X)
F = +4.0897104E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +4.8776653E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +6.3950843E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 133 DEGREES OF FREEDOM = 131
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN AT RUPTURE
UNIT OF MEASURE = IN/IN
0.20
0.40
0.60
0.80
1.00
1.20
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSET MTRS ONLY, OUTER,AXIAL POS LOW RATE CHS=2.0 IN/MIN,STRAIN/RUPTURE

Figure 7

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	38	+5.0097250E-01	+6.3180530E-02	+6.2099999E-01	+2.9399996E-01	+4.7553163E-01
102.0	3	+4.9266654E-01	+6.5516900E-02	+5.5899995E-01	+4.2799997E-01	+4.7760057E-01
113.0	19	+4.5047324E-01	+8.2578770E-02	+5.9299999E-01	+3.2899999E-01	+4.8997987E-01
115.0	4	+5.4767465E-01	+2.1740896E-02	+5.7779997E-01	+5.2779996E-01	+4.9104891E-01
120.0	3	+7.5833320E-01	+4.9215036E-02	+8.0199998E-01	+7.0499998E-01	+4.9622134E-01
122.0	4	+5.2174949E-01	+4.7834698E-02	+5.6299996E-01	+4.5369994E-01	+4.9829918E-01
129.0	4	+3.3749961E-01	+5.9589653E-03	+3.4629994E-01	+3.3329999E-01	+5.0553154E-01
131.0	3	+4.8023319E-01	+2.2046508E-02	+4.9809998E-01	+4.5559996E-01	+5.0769348E-01
137.0	3	+5.9693300E-01	+3.7299642E-02	+6.3149994E-01	+5.5739998E-01	+5.1380735E-01
143.0	4	+3.9289951E-01	+2.4153812E-02	+4.1869997E-01	+3.6369997E-01	+5.2001429E-01
148.0	3	+5.3396636E-01	+3.1624277E-02	+5.7029998E-01	+5.1269996E-01	+5.2518665E-01
155.0	3	+4.9729979E-01	+2.4779738E-03	+5.0009995E-01	+4.9569994E-01	+5.3242802E-01
161.0	3	+4.6916639E-01	+3.9470929E-02	+4.9259996E-01	+4.2359995E-01	+5.3863489E-01
165.0	3	+5.2729952E-01	+2.2712641E-02	+5.5309998E-01	+5.1039999E-01	+5.4277282E-01
177.0	3	+4.4156646E-01	+2.9162650E-02	+4.7029995E-01	+4.1199994E-01	+5.5518656E-01
183.0	3	+5.6789970E-01	+5.9172125E-02	+6.2789994E-01	+5.0959998E-01	+5.6139343E-01
195.0	3	+4.9433326E-01	+7.5639824E-02	+5.7499998E-01	+4.2499995E-01	+5.7380723E-01
209.0	6	+5.4471617E-01	+2.8100547E-02	+5.9099996E-01	+5.1429998E-01	+5.9828991E-01
213.0	6	+5.9214937E-01	+1.9773917E-02	+6.1469995E-01	+5.5499994E-01	+6.0242784E-01
222.0	3	+5.6066638E-01	+4.6505034E-02	+5.8899998E-01	+5.0699996E-01	+6.0173815E-01
228.0	6	+6.2733298E-01	+5.1973416E-02	+6.7599999E-01	+5.5509996E-01	+6.0794503E-01
251.0	6	+7.6338291E-01	+7.7664687E-02	+8.1999999E-01	+6.1109995E-01	+6.3173906E-01

II STAGE DSCT MTRS CNLY, OUTER,AXIAL PCS,LOW RATE CHS=2.0 IN/MIN,STRAIN/RUPTURE

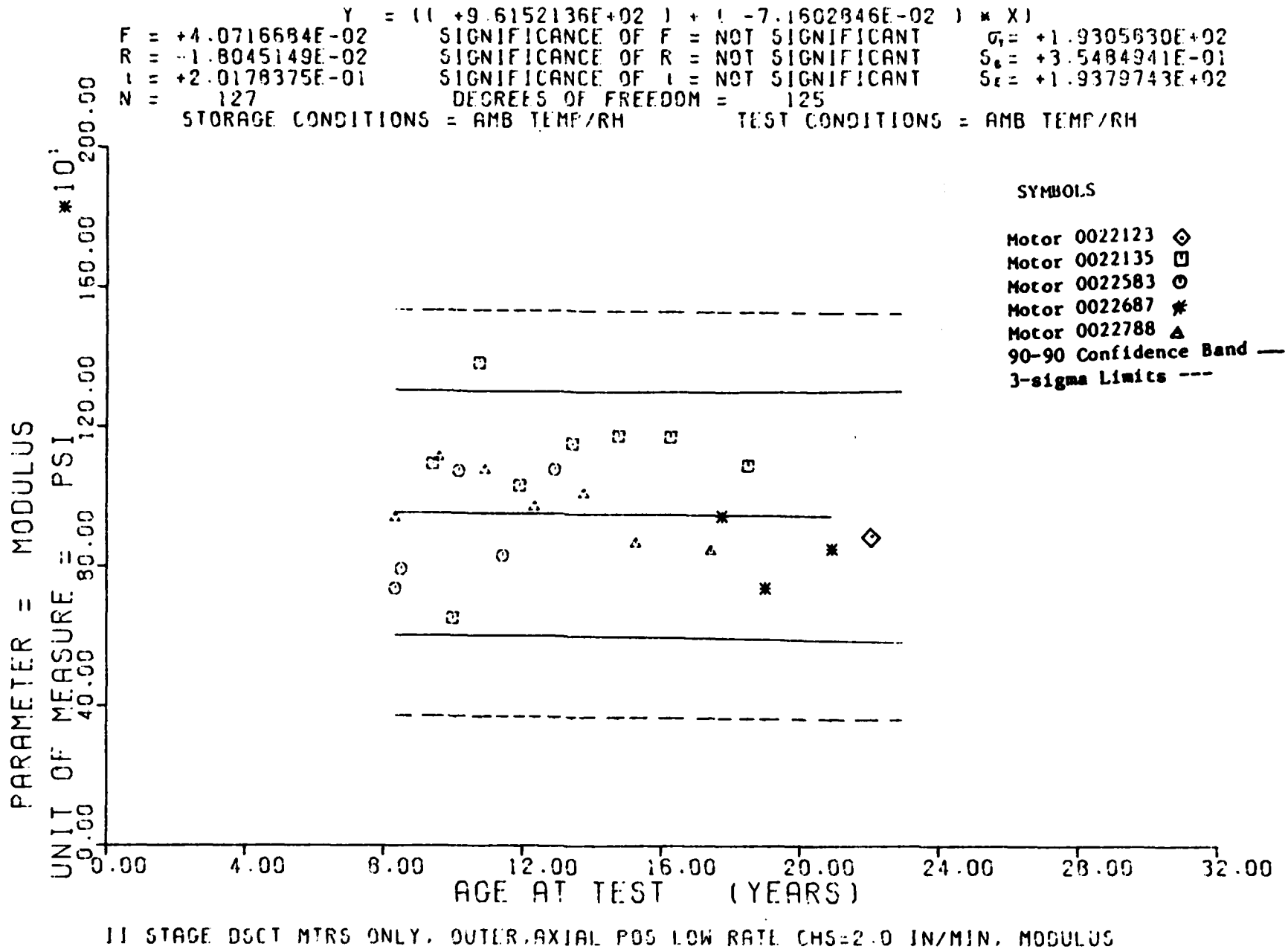

Y = (+9.6152136E+02) + (-7.1602846E-02) * X)
F = +4.0716684E-02 SIGNIFICANCE OF F = NOT SIGNIFICANT σT = +1.9305630E+02
R = -1.8045149E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT Se = +3.5484941E-01
I = +2.0178375E-01 SIGNIFICANCE OF I = NOT SIGNIFICANT Sr = +1.9379743E+02
N = 127 DEGREES OF FREEDOM = 125
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MODULUS
UNIT OF MEASURE = PSI *10³
0.00
40.00
80.00
120.00
150.00
200.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS ONLY, OUTER,AXIAL POS LOW RATE CHS=2.0 IN/MIN, MODULUS

Figure 8

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	35	+8.2966698E+02	+1.1404435E+02	+1.0650000E+03	+6.8000000E+02	+9.5436083E+02
102.0	3	+7.9333325E+02	+5.7735026E+00	+8.0000000E+02	+7.9000000E+02	+9.5421777E+02
113.0	16	+1.0946875E+03	+2.1138597E+02	+1.3050000E+03	+7.4500000E+02	+9.5343017E+02
115.0	4	+1.1122500E+03	+4.1740268E+01	+1.1470000E+03	+1.0500000E+03	+9.5328686E+02
120.0	3	+6.5233325E+02	+7.6539651E+01	+7.0500000E+02	+5.5200000E+02	+9.5293895E+02
122.0	4	+1.0737500E+03	+3.8499999E+01	+1.1190000E+03	+1.0270000E+03	+9.5278564E+02
129.0	4	+1.3835000E+03	+1.5885003E+01	+1.3960000E+03	+1.3620000E+03	+9.5229442E+02
131.0	3	+1.0750000E+03	+1.9519221E+01	+1.0950000E+03	+1.0560000E+03	+9.5214135E+02
137.0	3	+8.3166650E+02	+1.4502873E+01	+8.4600000E+02	+8.1700000E+02	+9.5171166E+02
143.0	4	+1.0315000E+03	+1.5502580E+02	+1.2460000E+03	+8.9600000E+02	+9.5128198E+02
148.0	3	+9.7000000E+02	+6.6843099E+01	+1.0260000E+03	+8.9600000E+02	+9.5092407E+02
155.0	3	+1.0766665E+03	+9.1876729E+01	+1.1440000E+03	+9.7200000E+02	+9.5042285E+02
161.0	3	+1.1520000E+03	+7.3979726E+01	+1.2350000E+03	+1.0930000E+03	+9.4999116E+02
165.0	3	+1.0073332E+03	+1.5027419E+02	+1.1010000E+03	+8.3400000E+02	+9.4971673E+02
177.0	3	+1.1740000E+03	+1.0514751E+02	+1.2500000E+03	+1.0540000E+03	+9.4884765E+02
183.0	3	+8.6600000E+02	+1.6822603E+01	+8.8500000E+02	+8.5300000E+02	+9.4841796E+02
195.0	3	+1.1706665E+03	+2.4378952E+01	+1.1890000E+03	+1.1430000E+03	+9.4755859E+02
209.0	6	+8.4483325E+02	+1.7747300E+01	+8.6700000E+02	+8.2400000E+02	+9.4655615E+02
213.0	6	+9.4450000E+02	+8.9761350E+01	+1.0450000E+03	+8.1800000E+02	+9.4626775E+02
222.0	3	+1.0866665E+03	+1.6900611E+02	+1.1970000E+03	+9.7900000E+02	+9.4562548E+02
228.0	6	+7.3750000E+02	+1.5932451E+02	+8.7000000E+02	+4.4300000E+02	+9.4519580E+02
251.0	6	+8.5033325E+02	+6.3610271E+01	+9.6100000E+02	+7.6900000E+02	+9.4354980E+02

II STAGE DSCT MTRS ONLY, OUTER,AXIAL RES.LOW RATE (RS=2.0 IN/MIN, MODULUS

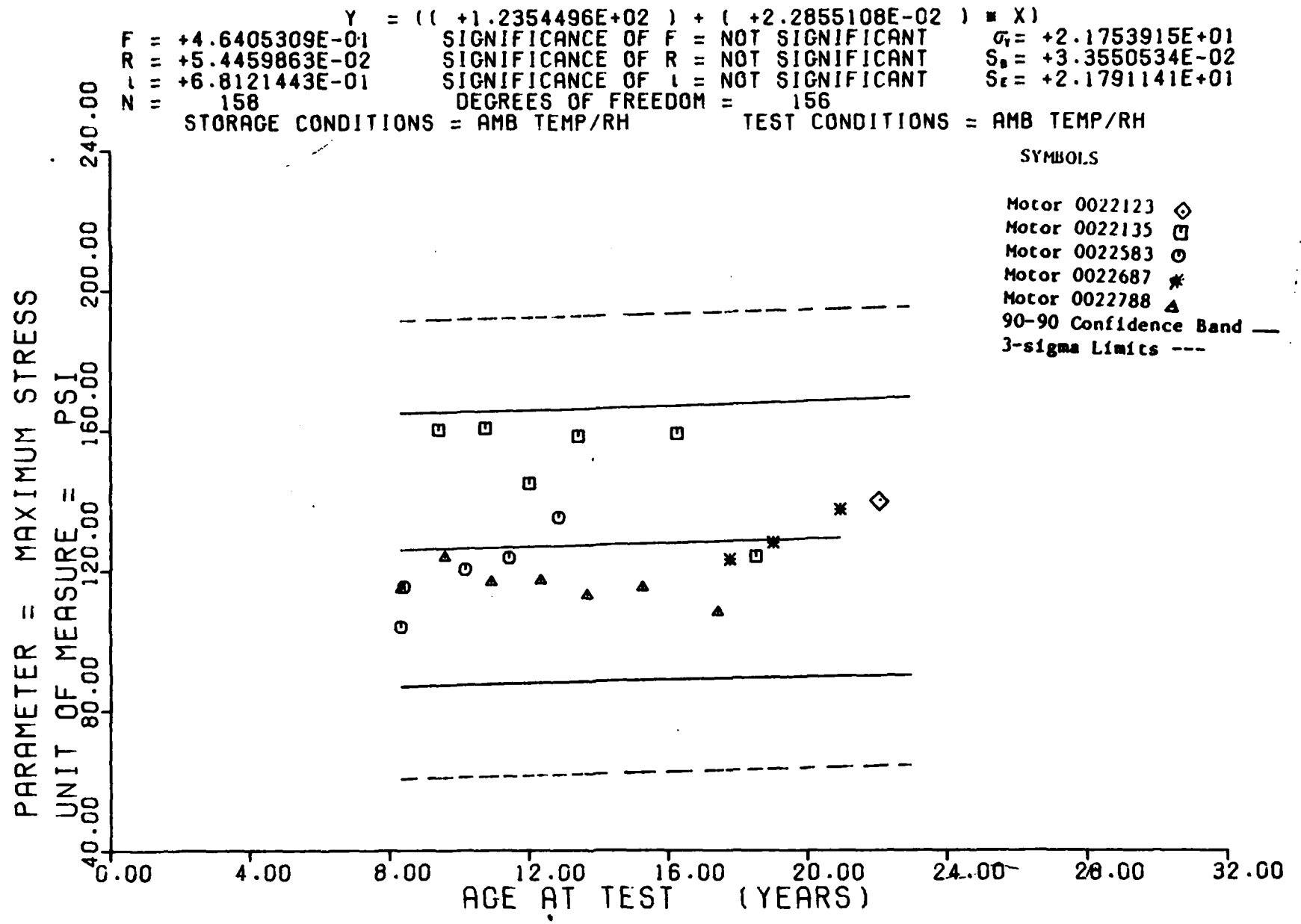

Y = ((+1.2354496E+02) + (+2.2855108E-02) * X)
F = +4.6405309E-01 SIGNIFICANCE OF F = NOT SIGNIFICANT
R = +5.4459863E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT
N = 158 DEGREES OF FREEDOM = 156
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MAXIMUM STRESS
UNIT OF MEASURE = PSI
240.00
200.00
160.00
120.00
80.00
40.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE,DSCT MTRS,ONLY, INNER,AXIAL POS.LOW RATE CHS=2.0 IN/MIN,MAX STRESS

Figure 9

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	47	+1.0665309E+02	+1.2262928E+01	+1.3500000E+02	+8.8000000E+01	+1.2583047E+02
101.0	3	+1.1533332E+02	+2.0816659E+00	+1.1700000E+02	+1.1300000E+02	+1.2585331E+02
113.0	25	+1.6013598E+02	+1.1451591E+01	+1.8239999E+02	+1.4600000E+02	+1.2612757E+02
115.0	4	+1.2376245E+02	+1.6433804E+00	+1.2607998E+02	+1.2173999E+02	+1.2617329E+02
122.0	4	+1.2032745E+02	+1.2474578E+00	+1.2186999E+02	+1.1891999E+02	+1.2633329E+02
129.0	4	+1.6060485E+02	+1.6142939E+00	+1.6275999E+02	+1.5900999E+02	+1.2649327E+02
131.0	3	+1.1671997E+02	+2.2014737E+00	+1.1891999E+02	+1.1451998E+02	+1.2653897E+02
137.0	3	+1.2369995E+02	+1.3552253E+00	+1.2475999E+02	+1.2217999E+02	+1.2667610E+02
144.0	3	+1.4483657E+02	+1.7027619E+00	+1.4675999E+02	+1.4356999E+02	+1.2683609E+02
148.0	3	+1.1721328E+02	+4.1233268E+00	+1.2109999E+02	+1.1288999E+02	+1.2692752E+02
154.0	3	+1.3520996E+02	+3.8993797E+00	+1.3795999E+02	+1.3075000E+02	+1.2706465E+02
161.0	3	+1.5839656E+02	+6.1652806E+00	+1.6356999E+02	+1.5157998E+02	+1.2722462E+02
164.0	3	+1.1293325E+02	+5.3350770E+00	+1.1759999E+02	+1.0711999E+02	+1.2729319E+02
188.0	3	+1.1520661E+02	+9.0414732E-01	+1.1571998E+02	+1.1428999E+02	+1.2772744E+02
195.0	3	+1.5909326E+02	+6.6227904E-01	+1.5969999E+02	+1.5839999E+02	+1.2800170E+02
209.0	9	+1.0809658E+02	+6.9299297E+00	+1.1740998E+02	+9.9699985E+01	+1.2832167E+02
213.0	9	+1.2311099E+02	+4.7983339E+00	+1.3032998E+02	+1.1909998E+02	+1.2841310E+02
222.0	9	+1.2402766E+02	+2.7680723E+00	+1.2781999E+02	+1.2016999E+02	+1.2861878E+02
228.0	11	+1.2796656E+02	+1.3988126E+01	+1.4398999E+02	+1.0908999E+02	+1.2875592E+02
251.0	6	+1.3737487E+02	+2.9658688E+00	+1.4307998E+02	+1.3526998E+02	+1.2928158E+02

II STAGE,CSCT MTRS,CNLY, INNER,AXIAL PCS,LOW RATE CHS=2.0 IN/MIN,MAX STRESS

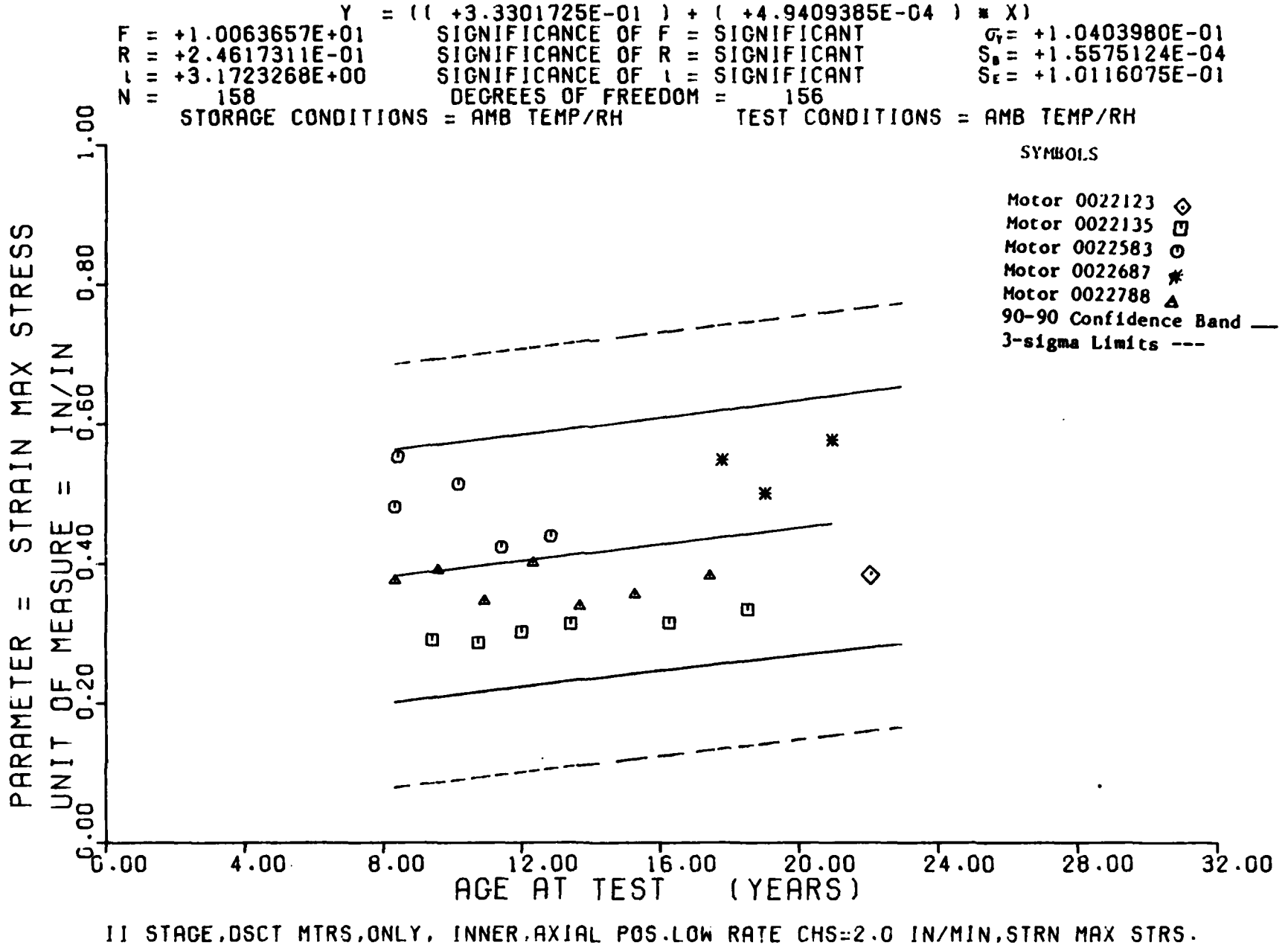

Y = ((+3.3301725E-01) + (+4.9409385E-04) * X)
F = +1.0063657E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +2.4617311E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +3.1723268E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 158 DEGREES OF FREEDOM = 156
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN MAX STRESS
UNIT OF MEASURE = IN/IN
0.00
0.20
0.40
0.60
0.80
1.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE,DSCT MTRS,ONLY, INNER,AXIAL POS.LOW RATE CHS=2.0 IN/MIN,STRN MAX STRS.

Figure 10

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
106.0	47	+4.3391287E-01	+6.7213818E-02	+5.5799996E-01	+3.1999999E-01	+3.8242661E-01
101.0	3	+5.5266630E-01	+4.3009614E-02	+5.9999996E-01	+5.1599997E-01	+3.8292068E-01
113.0	25	+2.9083955E-01	+2.0687478E-02	+3.3199995E-01	+2.6999998E-01	+3.8884985E-01
115.0	4	+3.9074969E-01	+2.2083441E-03	+3.9259999E-01	+3.8889998E-01	+3.8983803E-01
122.0	4	+5.1387476E-01	+3.9093240E-02	+5.7219994E-01	+4.9069994E-01	+3.9329665E-01
129.0	4	+2.8657484E-01	+1.7684164E-02	+3.1299996E-01	+2.7589994E-01	+3.9675533E-01
131.0	3	+3.4626638E-01	+3.2031734E-03	+3.4809994E-01	+3.4259998E-01	+3.9774352E-01
137.0	3	+4.2343294E-01	+5.6672949E-03	+4.2959994E-01	+4.1849994E-01	+4.0070807E-01
144.0	3	+3.0183327E-01	+4.4913366E-02	+3.4999996E-01	+2.6109999E-01	+4.0416675E-01
148.0	3	+4.0106642E-01	+1.9955890E-02	+4.1409999E-01	+3.7809997E-01	+4.0614312E-01
154.0	3	+4.3939971E-01	+1.4120487E-02	+4.4959998E-01	+4.2329996E-01	+4.0910768E-01
161.0	3	+3.1349992E-01	+1.5893931E-02	+3.3149999E-01	+3.0139994E-01	+4.1256636E-01
164.0	3	+3.3859980E-01	+8.2415633E-02	+4.0699994E-01	+2.4709999E-01	+4.1404861E-01
183.0	3	+3.5583305E-01	+6.1244030E-03	+3.6039996E-01	+3.4889996E-01	+4.2343640E-01
195.0	3	+3.1513327E-01	+7.7828245E-02	+4.0499997E-01	+2.6969999E-01	+4.2936551E-01
209.0	3	+3.8272190E-01	+5.7015806E-02	+4.6269994E-01	+3.2619994E-01	+4.3628281E-01
213.0	9	+5.4869967E-01	+1.0869945E-01	+7.0629996E-01	+4.4589996E-01	+4.3825924E-01
222.0	9	+3.2434396E-01	+7.1373202E-02	+4.9099999E-01	+2.6689994E-01	+4.4270604E-01
228.0	11	+5.0073587E-01	+1.0597424E-01	+6.2459999E-01	+3.3859997E-01	+4.4567060E-01
251.0	6	+5.7704973E-01	+1.9515498E-02	+6.1669999E-01	+5.6669998E-01	+4.5703476E-01

II STAGE.DSCT MTRS.ONLY. INNER.AXIAL PCS.LOW RATE CHS=2.0 IN/MIN.STRN MAX STRS.

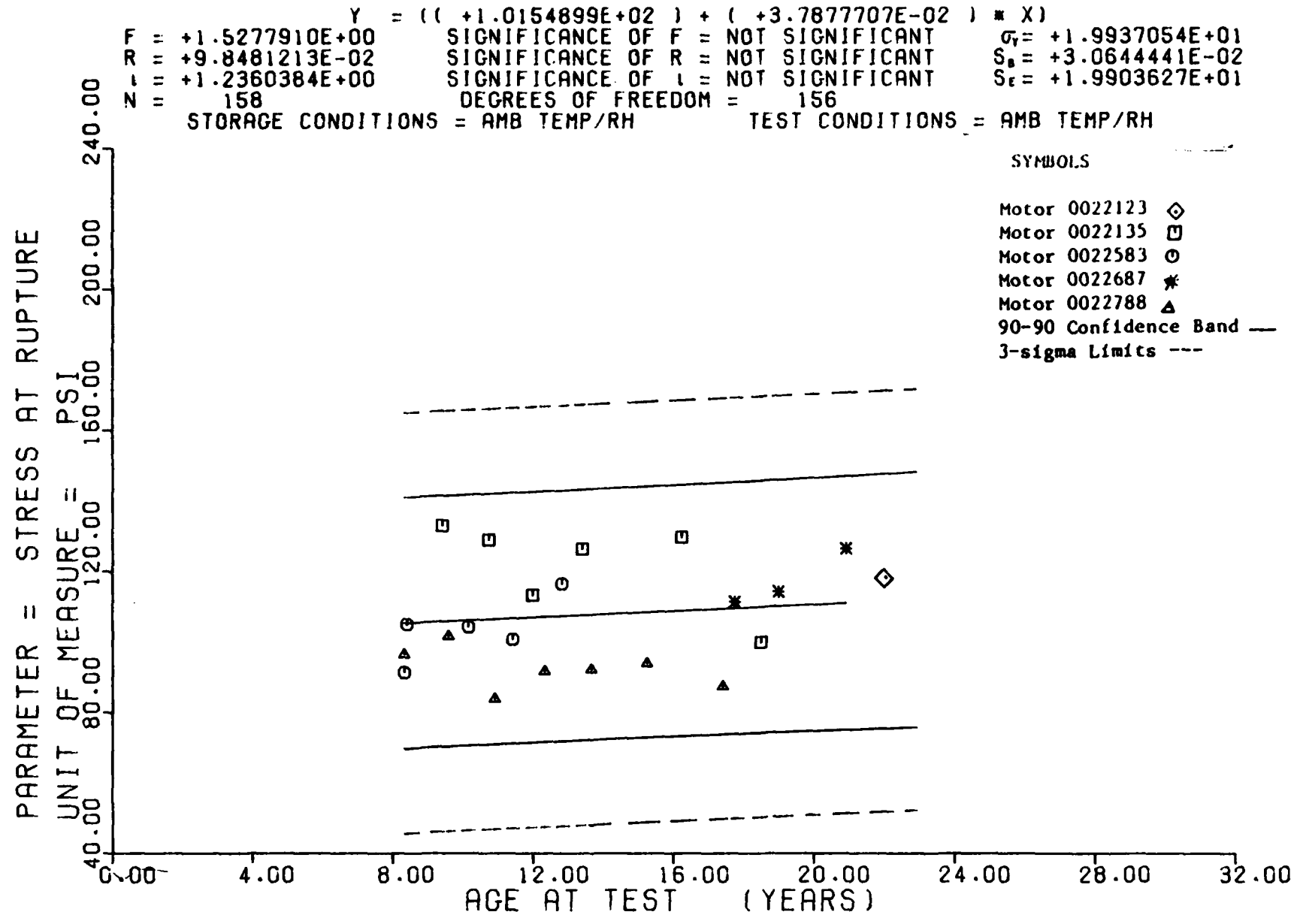

Y = ((+1.0154899E+02) + (+3.7877707E-02) * X)
F = +1.5277910E+00 SIGNIFICANCE OF F = NOT SIGNIFICANT σY = +1.9937054E+01
R = +9.8481213E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT Sb = +3.0644441E-02
ι = +1.2360384E+00 SIGNIFICANCE OF ι = NOT SIGNIFICANT Sε = +1.9903627E+01
N = 158 DEGREES OF FREEDOM = 156
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS AT RUPTURE
UNIT OF MEASURE = PSI
240.00
200.00
160.00
120.00
80.00
40.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE,DSCT MTRS,ONLY, INNER,AXIAL POS.LOW RATE CHS=2.0 IN/MIN,STRESS/RUPTURE

Figure 11

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
109.0	47	+9.3646774E+01	+1.3573255E+01	+1.2200000E+02	+7.3000000E+01	+1.0533676E+02
111.0	3	+1.0500000E+02	+1.0000000E+00	+1.0600000E+02	+1.0400000E+02	+1.0537463E+02
113.0	25	+1.3295597E+02	+1.1600152E+01	+1.5200000E+02	+1.1469999E+02	+1.0582917E+02
115.0	4	+1.0159497E+02	+3.2538061E+00	+1.0596998E+02	+9.8669998E+01	+1.0590492E+02
122.0	4	+1.0423742E+02	+2.2670666E+00	+1.0740998E+02	+1.0260998E+02	+1.0617007E+02
129.0	4	+1.2892242E+02	+9.8250790E+00	+1.4270999E+02	+1.1976998E+02	+1.0643521E+02
131.0	3	+8.3969988E+01	+2.5250440E+00	+8.6769989E+01	+8.1989990E+01	+1.0651097E+02
137.0	3	+1.0072329E+02	+4.1889462E+00	+1.0511999E+02	+9.6779998E+01	+1.0673823E+02
144.0	3	+1.1325991E+02	+1.2518413E+01	+1.2513999E+02	+1.0019998E+02	+1.0700339E+02
148.0	3	+9.1703277E+01	+2.9293059E+00	+9.4699996E+01	+8.8849990E+01	+1.0715489E+02
154.0	3	+1.1652661E+02	+1.9627978E+00	+1.1777999E+02	+1.1426998E+02	+1.0738215E+02
161.0	3	+1.2636660E+02	+8.9281008E+00	+1.3507998E+02	+1.1723999E+02	+1.0764730E+02
164.0	3	+9.2156646E+01	+1.1757781E+01	+9.8389990E+01	+7.8579986E+01	+1.0776094E+02
183.0	3	+9.3889968E+01	+6.3370042E+00	+1.0118998E+02	+8.9809997E+01	+1.0948060E+02
195.0	3	+1.2976660E+02	+8.9680600E+00	+1.3839999E+02	+1.2050000E+02	+1.0893515E+02
209.0	9	+8.7415435E+01	+1.6817200E+01	+1.1009999E+02	+7.3299987E+01	+1.0946543E+02
213.0	9	+1.1141658E+02	+8.2223073E+00	+1.2577999E+02	+1.0335998E+02	+1.0961694E+02
222.0	9	+9.5888793E+01	+1.0727652E+01	+1.1440998E+02	+8.7099990E+01	+1.0995783E+02
228.0	11	+1.1429624E+02	+2.1488876E+01	+1.3868998E+02	+8.1299987E+01	+1.1018510E+02
251.0	6	+1.2653657E+02	+2.3195007E+00	+1.2919999E+02	+1.2385998E+02	+1.1105628E+02

II STAGE,DSCT MTRS,CNLY, INNER,AXIAL PCS,LOW RATE CHS=2.0 IN/MIN,STRESS/RUPTURE

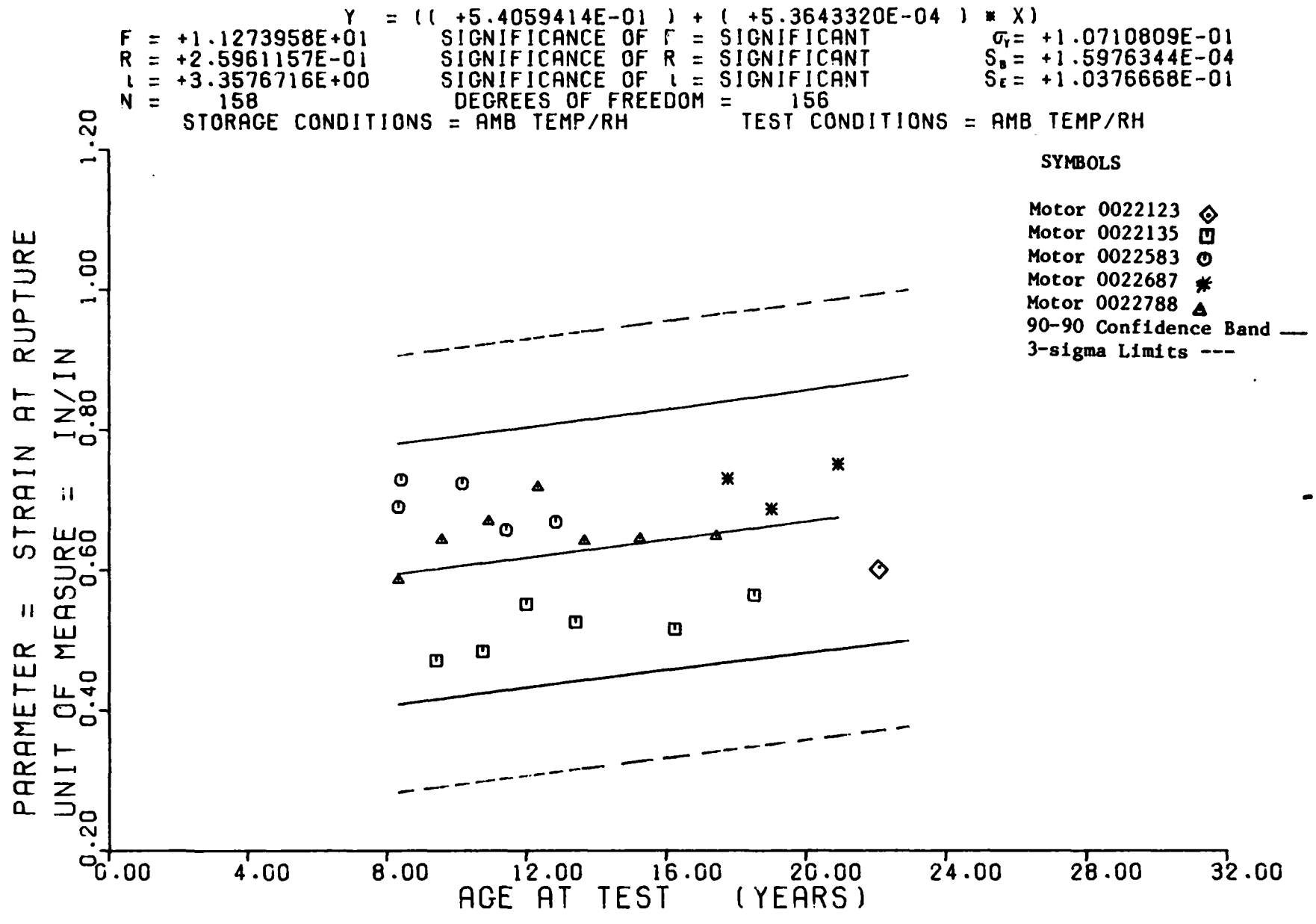

Y = ((+5.4059414E-01) + (+5.3643320E-04) * X)
F = +1.1273958E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +2.5961157E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +3.3576716E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 158 DEGREES OF FREEDOM = 156
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN AT RUPTURE
UNIT OF MEASURE = IN/IN
0.20
0.40
0.60
0.80
1.00
1.20
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE,DSCT MTRS,ONLY, INNER,AXIAL POS,LOW RATE CHS=2.0 IN/MIN,STRAIN/RUPTURE

Figure 12

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	47	+6.4312350E-01	+8.0535646E-02	+7.9799997E-01	+5.0000000E-01	+5.9423744E-01
101.0	3	+7.2833281E-01	+5.7296378E-02	+7.8199994E-01	+6.6799998E-01	+5.9477388E-01
113.0	25	+4.7139548E-01	+5.4065242E-02	+5.8299994E-01	+3.6599999E-01	+6.0121107E-01
115.0	4	+6.4304971E-01	+5.1480771E-02	+6.7959994E-01	+5.7039999E-01	+6.0228395E-01
122.0	4	+7.2314953E-01	+4.0180247E-02	+7.7959996E-01	+6.9259995E-01	+6.0603898E-01
129.0	4	+4.8427486E-01	+9.2393849E-02	+5.6189994E-01	+3.4999996E-01	+6.0979402E-01
131.0	3	+6.6516620E-01	+1.1920713E-02	+6.7779999E-01	+6.5559995E-01	+6.1086684E-01
137.0	3	+6.5679961E-01	+7.6927802E-02	+7.0929998E-01	+5.6949998E-01	+6.1408549E-01
144.0	3	+5.5183279E-01	+3.6991873E-02	+5.8329999E-01	+5.1109999E-01	+6.1784052E-01
148.0	3	+7.1786624E-01	+3.0849122E-02	+7.5199997E-01	+6.9199997E-01	+6.1998623E-01
154.0	3	+6.6503305E-01	+2.4827725E-02	+6.9039994E-01	+6.4179998E-01	+6.2320482E-01
161.0	3	+5.2566650E-01	+3.4026008E-02	+5.6499999E-01	+5.0329995E-01	+6.2695986E-01
164.0	3	+6.4169979E-01	+1.0910100E-01	+7.1639996E-01	+5.1649999E-01	+6.2856918E-01
183.0	3	+6.4509963E-01	+8.3400781E-02	+7.0149999E-01	+5.4929995E-01	+6.3876140E-01
195.0	3	+5.1633322E-01	+5.5149971E-02	+5.6899994E-01	+4.5899999E-01	+6.4519858E-01
209.0	9	+6.4861059E-01	+7.5826496E-02	+7.3899996E-01	+5.4409998E-01	+6.5270864E-01
213.0	9	+7.3647721E-01	+4.0140348E-02	+8.1099998E-01	+6.7459994E-01	+6.5485441E-01
222.0	9	+5.6465506E-01	+6.9109410E-02	+6.6199994E-01	+4.6099996E-01	+6.5968227E-01
228.0	11	+6.8718135E-01	+8.1787301E-02	+8.1799995E-01	+5.8599996E-01	+6.6290086E-01
251.0	6	+7.5141632E-01	+3.5137815E-02	+7.9889994E-01	+6.9299995E-01	+6.7523884E-01

II STAGE,DSCT MTRS,CNLY, INNER,AXIAL PCS,LOW RATE CHS=2.0 IN/MIN,STRAIN/RUPTURE

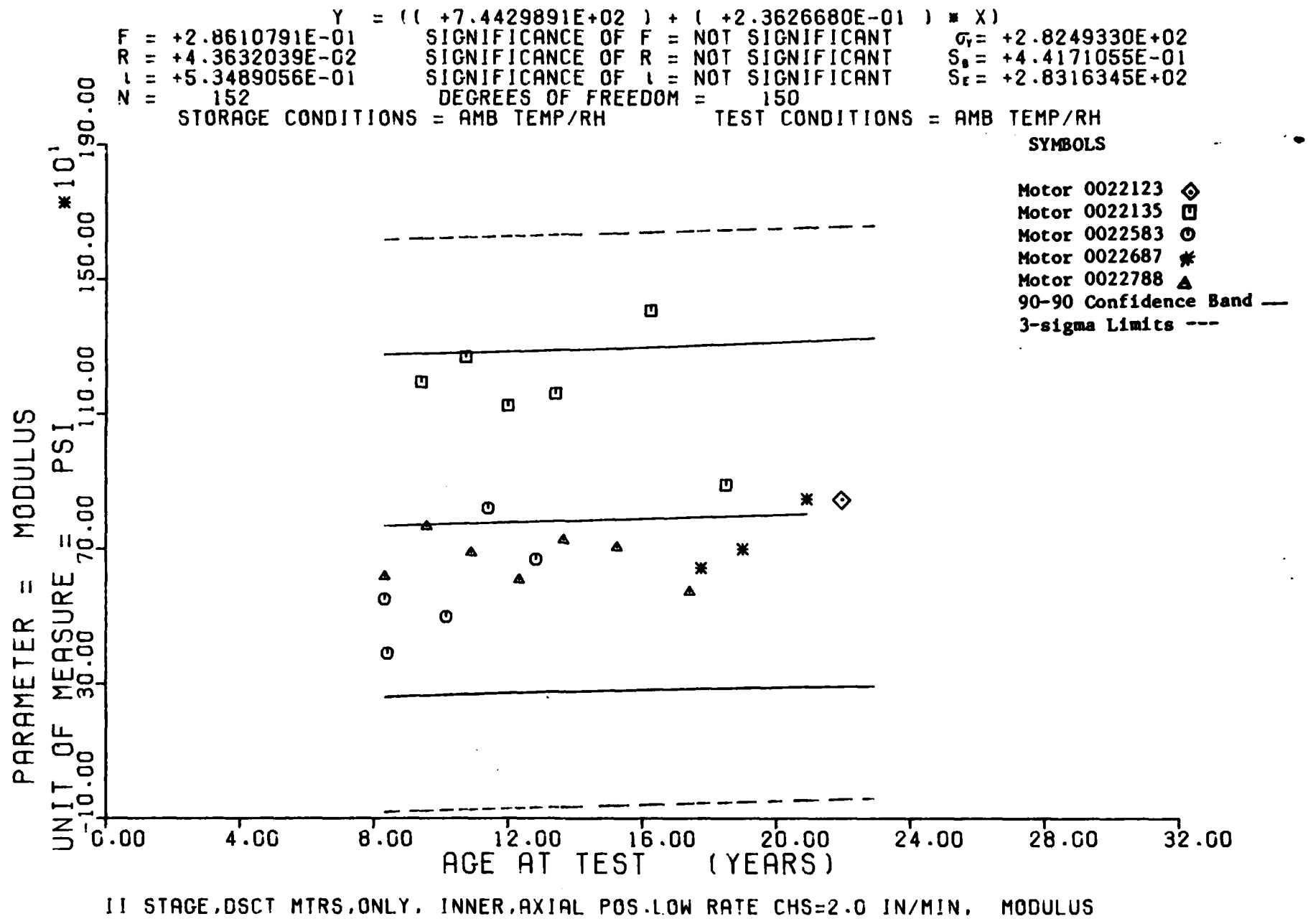

Y = ((+7.4429891E+02) + (+2.3626680E-01) * X)
F = +2.8610791E-01 SIGNIFICANCE OF F = NOT SIGNIFICANT σY = +2.8249330E+02
R = +4.3632039E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT SB = +4.4171055E-01
ι = +5.3489056E-01 SIGNIFICANCE OF ι = NOT SIGNIFICANT SE = +2.8316345E+02
N = 152 DEGREES OF FREEDOM = 150
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MODULUS
UNIT OF MEASURE = PSI *10¹
-10.00
30.00
70.00
110.00
150.00
190.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE,DSCT MTRS,ONLY, INNER,AXIAL POS.LOW RATE CHS=2.0 IN/MIN, MODULUS

Figure 13

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	44	+5.7818164E+02	+7.7091691E+01	+7.0000000E+02	+4.3000000E+02	+7.6792553E+02
101.0	3	+3.9000000E+02	+2.6457513E+01	+4.2000000E+02	+3.7000000E+02	+7.6816186E+02
113.0	22	+1.1545454E+03	+1.9879080E+02	+1.5800000E+03	+8.8000000E+02	+7.7099682E+02
115.0	4	+7.6600000E+02	+3.2197308E+01	+8.0800000E+02	+7.3000000E+02	+7.7146948E+02
122.0	4	+4.9850000E+02	+6.3374547E+01	+5.5600000E+02	+4.0900000E+02	+7.7312329E+02
129.0	4	+1.2690000E+03	+5.4387498E+01	+1.3310000E+03	+1.1990000E+03	+7.7477709E+02
131.0	3	+6.8500000E+02	+3.3181320E+01	+7.2000000E+02	+6.5400000E+02	+7.7524975E+02
137.0	3	+8.2033325E+02	+6.2292321E+01	+8.6400000E+02	+7.4900000E+02	+7.7666723E+02
144.0	3	+1.1253332E+03	+1.2932646E+02	+1.2000000E+03	+9.7600000E+02	+7.7832129E+02
148.0	3	+6.0833325E+02	+7.6552814E+01	+6.9300000E+02	+5.4400000E+02	+7.7926635E+02
154.0	3	+6.6900000E+02	+4.3485629E+01	+6.9800000E+02	+6.1900000E+02	+7.8068383E+02
161.0	3	+1.1606665E+03	+7.1023470E+01	+1.2080000E+03	+1.0790000E+03	+7.8233764E+02
164.0	3	+7.2633325E+02	+3.1632314E+02	+1.0910000E+03	+5.2600000E+02	+7.8304663E+02
183.0	3	+7.0500000E+02	+1.9078784E+01	+7.2500000E+02	+6.8700000E+02	+7.8753564E+02
195.0	3	+1.4073332E+03	+2.3466003E+02	+1.6000000E+03	+1.1460000E+03	+7.9037084E+02
209.0	9	+5.7322216E+02	+4.0840475E+01	+6.2600000E+02	+5.2100000E+02	+7.9367846E+02
213.0	9	+6.4388667E+02	+6.2139851E+01	+7.0600000E+02	+5.6100000E+02	+7.9462353E+02
222.0	9	+8.8522216E+02	+1.4423225E+02	+1.0650000E+03	+6.2600000E+02	+7.9675000E+02
228.0	11	+6.9563623E+02	+1.1290285E+02	+8.9400000E+02	+5.7000000E+02	+7.9816772E+02
251.0	6	+8.4816650E+02	+3.9465036E+01	+8.8600000E+02	+8.0100000E+02	+8.0360180E+02

II STAGE,DSCT MTRS,CNLY, INNER,AXIAL PCS,LOW RATE CPS=2.0 IN/MIN, MODULUS

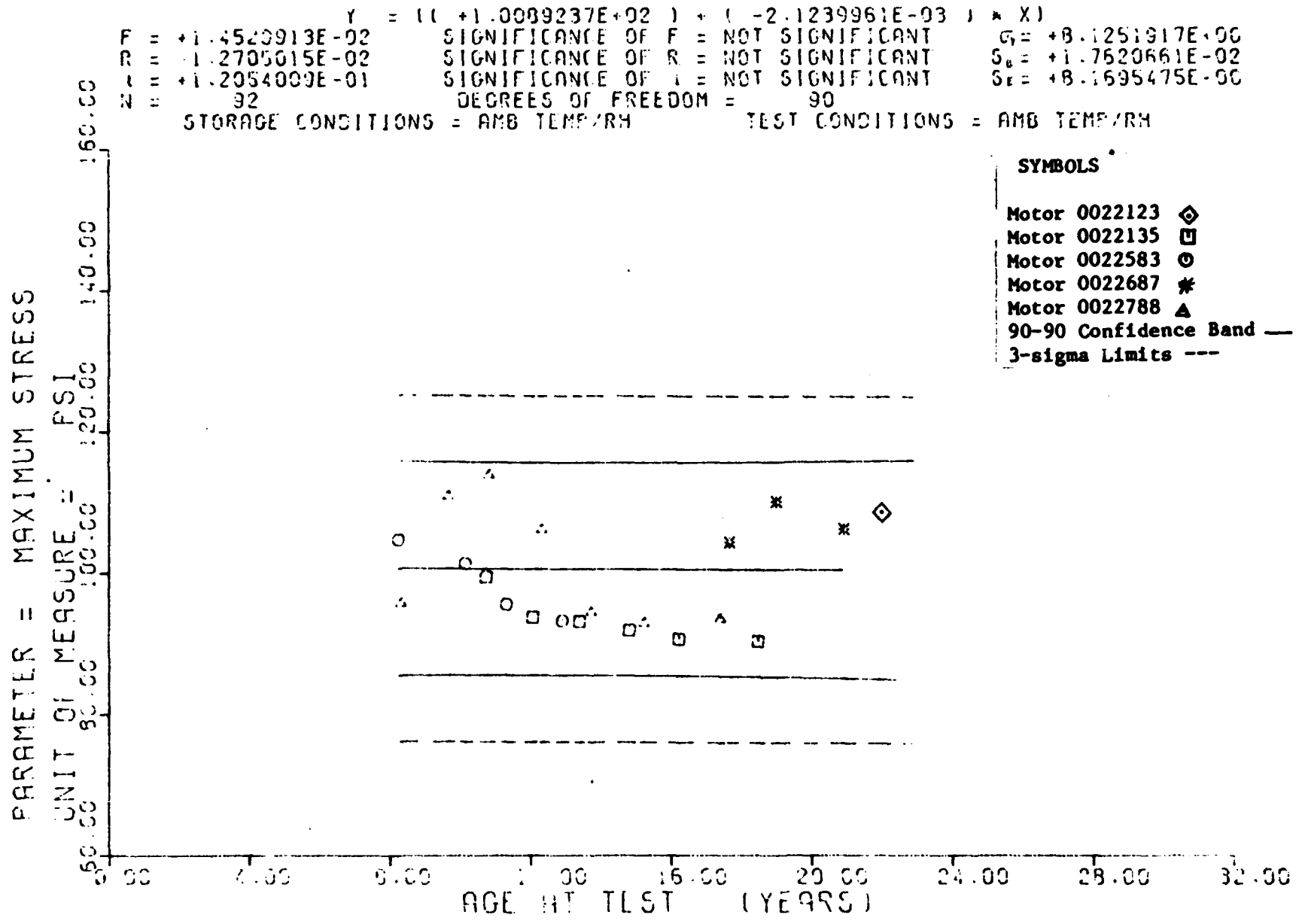

Y = (+1.0089237E+02) + (-2.1239961E-03) * X)
F = +1.4529913E-02 SIGNIFICANCE OF F = NOT SIGNIFICANT
R = -1.2705015E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT
N = 92 DEGREES OF FREEDOM = 90
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MAXIMUM STRESS
UNIT OF MEASURE = PSI
AGE AT TEST (YEARS)
II STAGE DSCT MTRS ONLY.OUTER.AXIAL POS BIAXIAL CHS=0 2 IN/MIN.MAXIMUM STRESS

Figure 14

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	8	+1.0475000E+02	+7.8330800E+00	+1.1300000E+02	+9.2000000E+01	+1.0068209E+02
100.0	8	+9.5750000E+01	+3.1959796E+00	+1.0100000E+02	+9.2000000E+01	+1.0067997E+02
116.0	7	+1.1089993E+02	+8.1731518E+00	+1.1805999E+02	+9.4679992E+01	+1.0064598E+02
122.0	8	+1.0133117E+02	+2.6067477E+00	+1.0520999E+02	+9.7369995E+01	+1.0063323E+02
129.0	8	+9.9423645E+01	+6.9566051E+00	+1.0697999E+02	+9.2029998E+01	+1.0061837E+02
130.0	3	+1.1388662E+02	+9.7965671E-01	+1.1476998E+02	+1.1283999E+02	+1.0061625E+02
136.0	3	+9.5559929E+01	+3.1650804E+00	+9.9169998E+01	+9.3149993E+01	+1.0060350E+02
145.0	3	+9.3756591E+01	+2.5700148E+00	+9.6269989E+01	+9.1139999E+01	+1.0058439E+02
148.0	2	+1.0618499E+02	+4.8854464E+00	+1.0963999E+02	+1.0272999E+02	+1.0057801E+02
155.0	3	+9.3219970E+01	+4.9267017E+00	+9.6449996E+01	+8.7549987E+01	+1.0056315E+02
161.0	3	+9.3129959E+01	+7.7975986E+00	+1.0102999E+02	+8.5439987E+01	+1.0055041E+02
165.0	3	+9.4476638E+01	+3.5351937E+00	+9.7849990E+01	+9.0799987E+01	+1.0054191E+02
178.0	3	+9.1876617E+01	+1.9199357E+00	+9.3579986E+01	+8.9799987E+01	+1.0051429E+02
183.0	3	+9.2876617E+01	+1.9748469E+00	+9.5129989E+01	+9.1459991E+01	+1.0050367E+02
195.0	3	+9.0636627E+01	+6.7600347E-01	+9.1339996E+01	+9.0000000E+01	+1.0047819E+02
209.0	3	+9.3456619E+01	+1.4516911E+00	+9.5129989E+01	+9.2619995E+01	+1.0044845E+02
212.0	6	+1.0433157E+02	+3.5768483E+00	+1.0858999E+02	+1.0026999E+02	+1.0044207E+02
222.0	3	+9.0289947E+01	+9.5981774E-01	+9.1219985E+01	+8.9309997E+01	+1.0042083E+02
229.0	6	+1.1001663E+02	+3.0872500E+00	+1.1398999E+02	+1.0575999E+02	+1.0040809E+02
251.0	6	+1.0614990E+02	+2.0094474E+00	+1.0909999E+02	+1.0340998E+02	+1.0035925E+02

II STAGE DSCT MTRS CNLY,OUTER,AXIAL POS.BIAXIAL CHS=0.2 IN/MIN,MAXIMUM STRESS

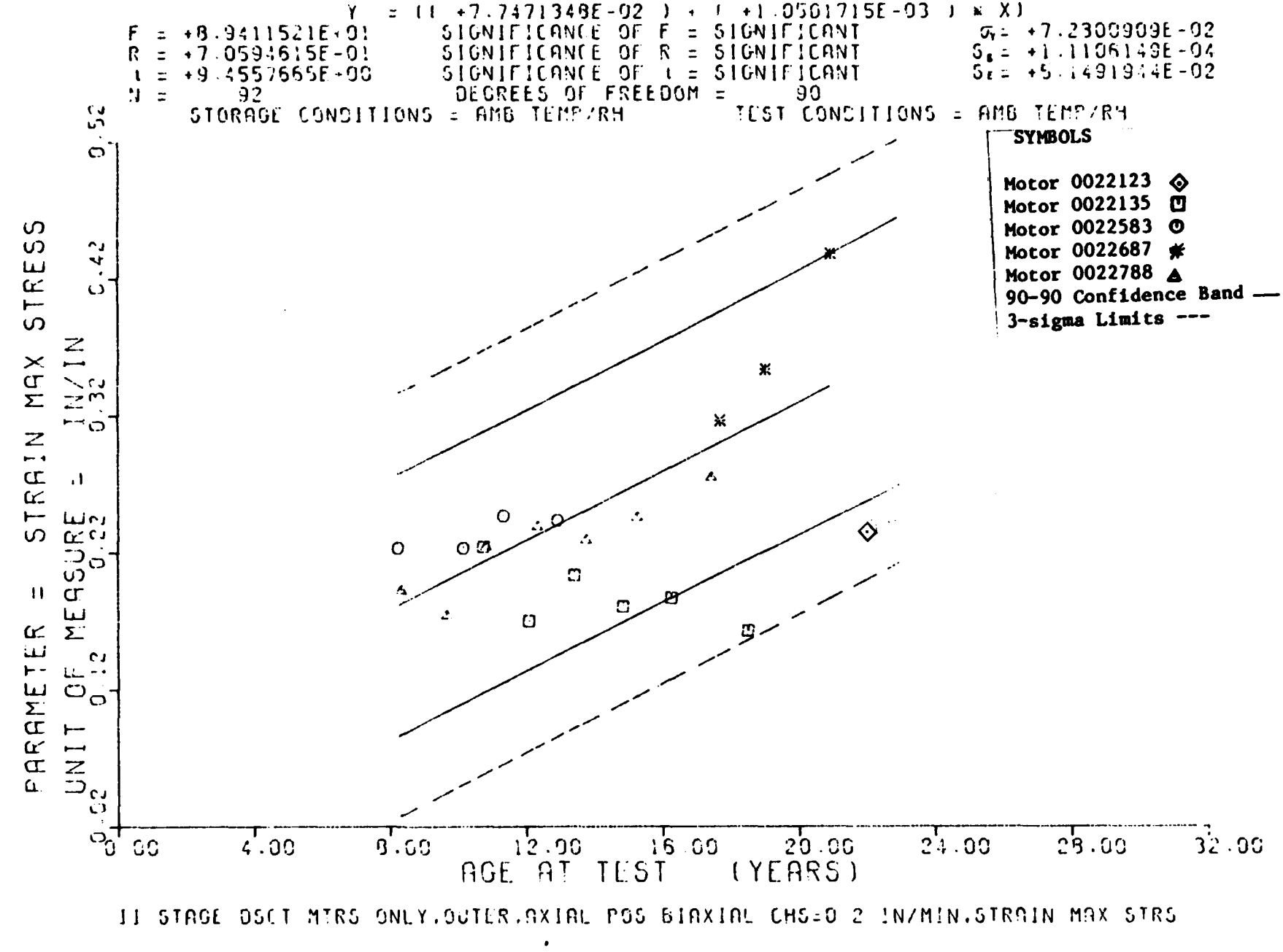

Y = (+7.7471348E-02) + (+1.0501715E-03) * X)
F = +8.9411521E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +7.0594615E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +9.4557665E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 92 DEGREES OF FREEDOM = 90
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN MAX STRESS
UNIT OF MEASURE = IN/IN
0.52
0.42
0.32
0.22
0.12
0.02
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
JJ STAGE DSCT MTRS ONLY.OUTER.AXIAL POS BIAXIAL CHS=0 2 IN/MIN.STRAIN MAX STRS

Figure 15

****** LINEAR REGRESSICN ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD CEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	8	+2.2324979E-01	+9.4727735E-03	+2.3399996E-01	+2.0899999E-01	+1.8143832E-01
100.0	8	+1.9199979E-01	+6.8286723E-03	+2.0099997E-01	+1.7999994E-01	+1.8248850E-01
116.0	7	+1.7379975E-01	+1.0032024E-02	+1.9299995E-01	+1.5999996E-01	+1.9929122E-01
122.0	8	+2.2302460E-01	+7.6825580E-03	+2.3619997E-01	+2.1459996E-01	+2.0559227E-01
129.0	8	+2.2394979E-01	+1.3129243E-02	+2.4759995E-01	+2.1079999E-01	+2.1294343E-01
130.0	3	+2.2409993E-01	+5.9813431E-03	+2.2969996E-01	+2.1779996E-01	+2.1399360E-01
136.0	3	+2.4679994E-01	+3.1376626E-02	+2.8299999E-01	+2.2739994E-01	+2.2029465E-01
145.0	3	+1.7026662E-01	+9.0656560E-03	+1.7989999E-01	+1.6189998E-01	+2.2974622E-01
148.0	2	+2.3879998E-01	+8.6245036E-03	+2.4489998E-01	+2.3269999E-01	+2.3289668E-01
155.0	3	+2.4369996E-01	+1.0687827E-03	+2.4489998E-01	+2.4279999E-01	+2.4024790E-01
161.0	3	+2.0369994E-01	+4.8152643E-02	+2.5909996E-01	+1.7189997E-01	+2.4654895E-01
165.0	3	+2.2933328E-01	+8.0051090E-03	+2.3829996E-01	+2.2289997E-01	+2.5074964E-01
178.0	3	+1.8083328E-01	+4.5959609E-03	+1.8599998E-01	+1.7719995E-01	+2.6440185E-01
183.0	3	+2.4573326E-01	+1.3563144E-03	+2.4709999E-01	+2.4439996E-01	+2.6965272E-01
195.0	3	+1.8689996E-01	+2.3347844E-02	+2.1379995E-01	+1.7189997E-01	+2.8225475E-01
209.0	3	+2.7486664E-01	+8.0157261E-03	+2.8399997E-01	+2.6899999E-01	+2.9695719E-01
212.0	6	+3.1621646E-01	+1.1104306E-02	+3.3059996E-01	+3.0489999E-01	+3.0010765E-01
222.0	3	+1.6289997E-01	+5.2444858E-03	+1.6769999E-01	+1.5729999E-01	+3.1060940E-01
228.0	6	+3.5368299E-01	+1.0185152E-02	+3.6639994E-01	+3.3639997E-01	+3.1691044E-01
251.0	6	+4.3776619E-01	+1.1287043E-02	+4.5139998E-01	+4.2569994E-01	+3.4106439E-01

II STAGE DSCT MTRS ONLY,OUTER,AXIAL POS,BIAXIAL CHS=0.2 IN/MIN,STRAIN MAX STRS.

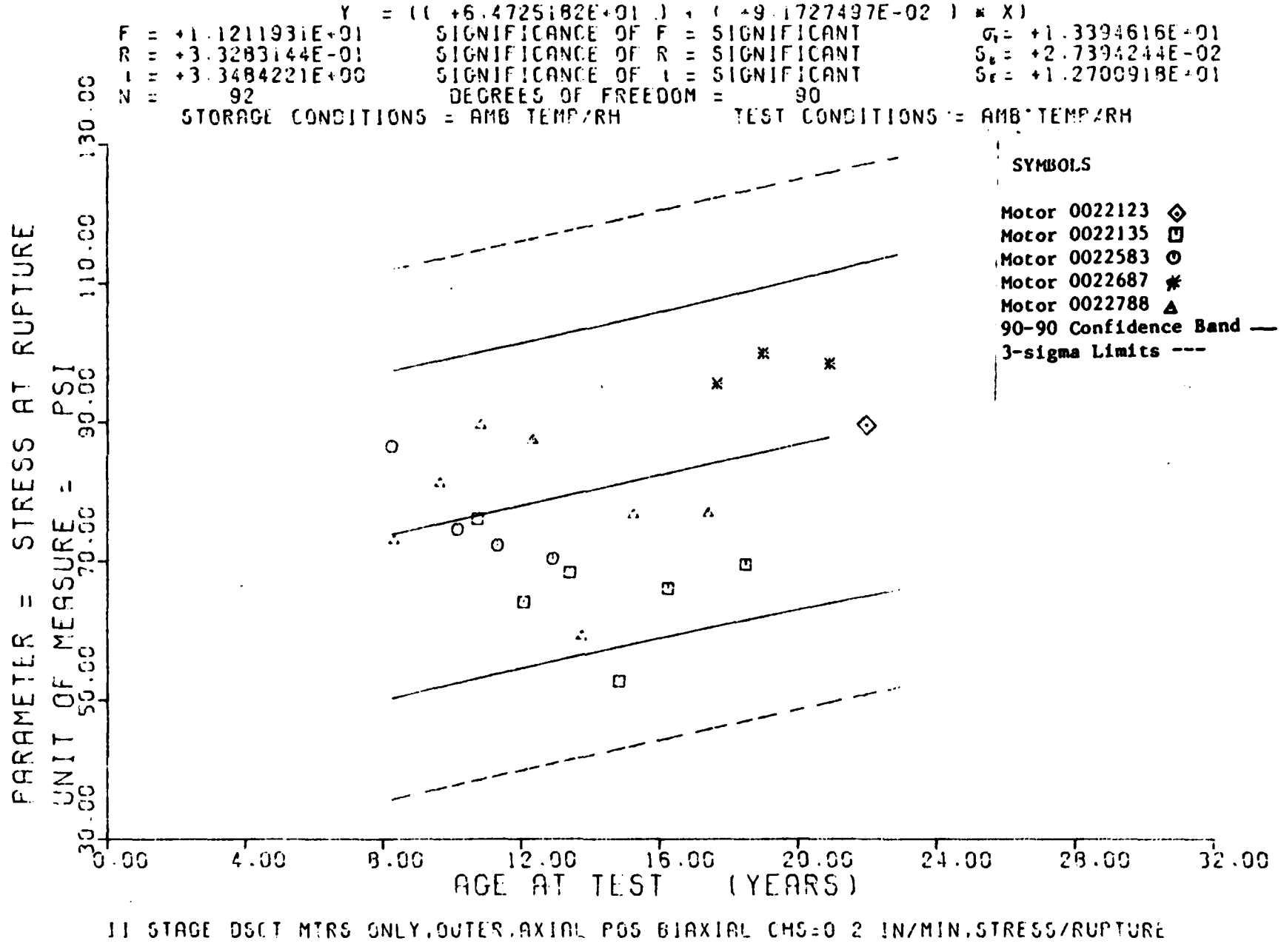

Y = ((+6.4725182E+01) + (+9.1727497E-02) * X)
F = +1.1211931E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +3.3283144E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +3.3484221E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 92 DEGREES OF FREEDOM = 90
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS AT RUPTURE
UNIT OF MEASURE = PSI
30.00
50.00
70.00
90.00
110.00
130.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
JJ STAGE DSCT MTRS ONLY,OUTER,AXIAL POS BIAXIAL CHS=0 2 IN/MIN,STRESS/RUPTURE

Figure 16

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	8	+8.6500000E+01	+8.1940745E+00	+9.8000000E+01	+7.5000000E+01	+7.3806198E+01
100.0	8	+7.3000000E+01	+2.7255405E+00	+7.8000000E+01	+7.0000000E+01	+7.3897918E+01
116.0	7	+8.1177062E+01	+8.3406161E+00	+8.9679992E+01	+6.3409988E+01	+7.5365570E+01
122.0	8	+7.4567413E+01	+6.2571111E+00	+8.3069992E+01	+6.5979995E+01	+7.5915924E+01
129.0	8	+7.6084930E+01	+9.2168423E+00	+8.7479995E+01	+6.4489990E+01	+7.6558029E+01
130.0	3	+8.9529937E+01	+1.3801828E+00	+9.1069992E+01	+8.8419998E+01	+7.6649749E+01
136.0	3	+7.2286651E+01	+4.4976968E+00	+7.7429992E+01	+6.9089996E+01	+7.7200119E+01
145.0	3	+6.4079986E+01	+7.5766378E+00	+6.9429992E+01	+5.5409988E+01	+7.8025665E+01
148.0	2	+8.7389984E+01	+4.6579130E-01	+8.7719985E+01	+8.7059997E+01	+7.8300842E+01
155.0	3	+7.0356658E+01	+9.7907140E+00	+8.0219985E+01	+6.0639999E+01	+7.8942932E+01
161.0	3	+6.8349990E+01	+6.1607821E+00	+7.4709991E+01	+6.2409988E+01	+7.9493301E+01
165.0	3	+5.9149993E+01	+9.2567199E+00	+6.7229995E+01	+4.9049987E+01	+7.9860214E+01
178.0	3	+5.2743316E+01	+9.8440628E+00	+6.3909988E+01	+4.5319992E+01	+8.1052673E+01
183.0	3	+7.6666656E+01	+1.2344862E+00	+7.8059997E+01	+7.5709991E+01	+8.1511306E+01
195.0	3	+6.6073318E+01	+2.0540094E+00	+6.8199996E+01	+6.4099990E+01	+8.2612030E+01
209.0	3	+7.6666653E+01	+2.4844465E+00	+7.8399993E+01	+7.4000000E+01	+8.3896224E+01
212.0	6	+9.5529937E+01	+5.0101944E+00	+1.0219999E+02	+8.9199996E+01	+8.4171401E+01
222.0	3	+6.9496658E+01	+4.5954975E+00	+7.4799987E+01	+6.6689987E+01	+8.5088684E+01
238.0	6	+9.5899902E+01	+4.2758962E+00	+1.0305999E+02	+9.1839996E+01	+8.5639038E+01
251.0	6	+9.8386596E+01	+2.8907427E+00	+1.0217999E+02	+9.4449996E+01	+8.7748779E+01

II STAGE DSCT MTRS CNLY,OUTER,AXIAL POS.BIAXIAL CHS=0.2 IN/MIN,STRESS/RUPTURE

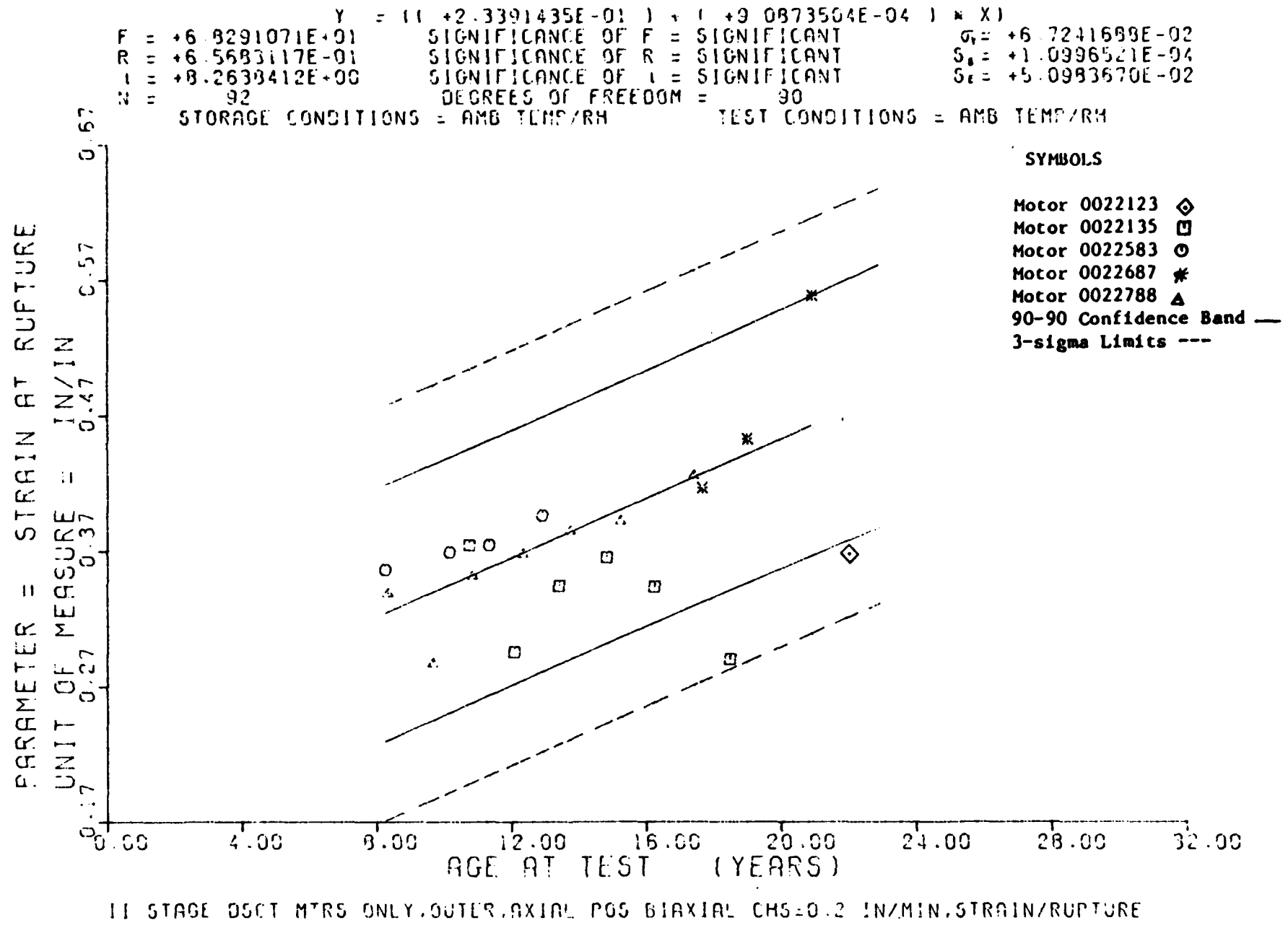

Y = (+2.3391435E-01) + (+9.0873504E-04) * X)
F = +6.8291071E+01 SIGNIFICANCE OF F = SIGNIFICANT σ = +6.7241688E-02
R = +6.5683117E-01 SIGNIFICANCE OF R = SIGNIFICANT S = +1.0996521E-04
t = +8.2638412E+00 SIGNIFICANCE OF t = SIGNIFICANT S = +5.0983670E-02
N = 92 DEGREES OF FREEDOM = 90
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN AT RUPTURE
UNIT OF MEASURE = IN/IN
0.17
0.27
0.37
0.47
0.57
0.67
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS ONLY.OUTER.AXIAL POS BIAXIAL CHS=0.2 IN/MIN.STRAIN/RUPTURE

Figure 17

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	8	+3.5599958E-01	+1.7386540E-02	+3.8299995E-01	+3.2599997E-01	+3.2387906E-01
109.0	8	+3.3837461E-01	+8.2616109E-03	+3.5299998E-01	+3.2799994E-01	+3.2478785E-01
116.0	7	+2.8679966E-01	+8.0275658E-03	+2.9839998E-01	+2.7679997E-01	+3.3932757E-01
122.0	8	+3.6903727E-01	+2.1433585E-02	+3.9869999E-01	+3.4029996E-01	+3.4478002E-01
129.0	8	+3.7427473E-01	+2.5788825E-02	+4.0249997E-01	+3.1619995E-01	+3.5114115E-01
130.0	3	+3.5149985E-01	+7.0443193E-03	+3.5919994E-01	+3.4539997E-01	+3.5204988E-01
136.0	3	+3.7433302E-01	+7.0433878E-03	+3.8099998E-01	+3.6699998E-01	+3.5750228E-01
145.0	3	+2.9553329E-01	+3.8912960E-02	+3.3859997E-01	+2.6289999E-01	+3.6568093E-01
148.0	2	+3.6764997E-01	+1.2091228E-02	+3.7619996E-01	+3.5909998E-01	+3.6840713E-01
155.0	3	+3.9606630E-01	+5.5134787E-02	+4.5359998E-01	+3.4369999E-01	+3.7476825E-01
161.0	3	+3.4423315E-01	+3.4227718E-02	+3.8229995E-01	+3.1599998E-01	+3.8022065E-01
165.0	3	+3.8449984E-01	+2.4785802E-02	+4.1299998E-01	+3.6799997E-01	+3.8385558E-01
178.0	3	+3.6509990E-01	+1.0524843E-02	+3.7599998E-01	+3.5499995E-01	+3.9566916E-01
183.0	3	+3.9173316E-01	+2.1104534E-02	+4.1599994E-01	+3.7769997E-01	+4.0021282E-01
195.0	3	+3.4343302E-01	+2.3708018E-02	+3.6799997E-01	+3.2069998E-01	+4.1111767E-01
209.0	3	+4.2533302E-01	+2.0042694E-02	+4.4799995E-01	+4.0999996E-01	+4.2383992E-01
212.0	6	+4.1618299E-01	+2.5147934E-02	+4.4879996E-01	+3.8239997E-01	+4.2656612E-01
222.0	3	+2.8996658E-01	+2.8769619E-02	+3.0999994E-01	+2.5699996E-01	+4.3565350E-01
228.0	6	+4.5224964E-01	+2.6090483E-02	+4.8189997E-01	+4.1409999E-01	+4.4110590E-01
251.0	6	+5.5806636E-01	+2.3319520E-02	+5.8189994E-01	+5.2289998E-01	+4.6200680E-01

II STAGE DSCT MTRS CNLY.OUTER.AXIAL POS.BIAXIAL CHS=0.2 IN/MIN.STRAIN/RUPTURE

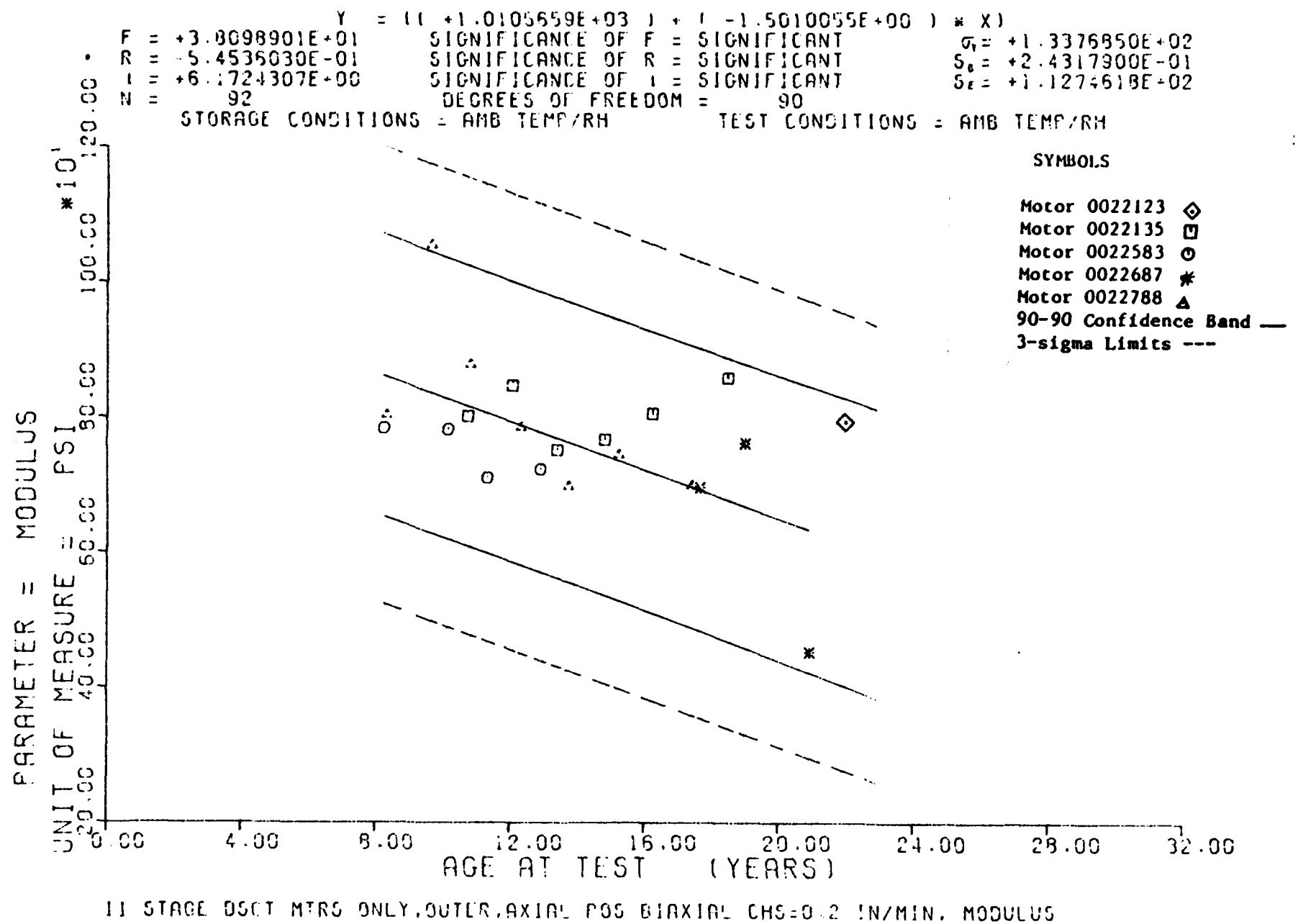

Y = (+1.0105659E+03) + (-1.5010055E+00) * X)
F = +3.8098901E+01 SIGNIFICANCE OF F = SIGNIFICANT σ1 = +1.3376850E+02
R = -5.4536030E-01 SIGNIFICANCE OF R = SIGNIFICANT Sb = +2.4317300E-01
I = +6.1724307E+00 SIGNIFICANCE OF I = SIGNIFICANT Se = +1.1274618E+02
N = 92 DEGREES OF FREEDOM = 90
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MODULUS
UNIT OF MEASURE = PSI *10¹
120.00
100.00
80.00
60.00
40.00
20.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS ONLY,OUTER,AXIAL POS BIAXIAL CHS=0.2 IN/MIN, MODULUS

Figure 18

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	8	+7.8362500E+02	+5.6534330E+01	+8.4000000E+02	+6.8100000E+02	+8.6196630E+02
100.0	8	+8.0300000E+02	+7.0423210E+01	+8.9000000E+02	+6.8100000E+02	+8.6046533E+02
116.0	7	+1.0550000E+03	+8.7346055E+01	+1.1390000E+03	+8.8800000E+02	+8.3644921E+02
122.0	8	+7.8187500E+02	+4.2042283E+01	+8.3700000E+02	+7.2400000E+02	+8.2744311E+02
129.0	8	+8.0175000E+02	+7.3435588E+01	+8.7900000E+02	+7.0000000E+02	+8.1693603E+02
130.0	3	+8.7800000E+02	+3.0512292E+01	+8.9900000E+02	+8.4300000E+02	+8.1543505E+02
136.0	3	+7.1033325E+02	+5.0964039E+01	+7.6900000E+02	+6.7700000E+02	+8.0642919E+02
145.0	3	+8.4700000E+02	+6.9720872E+01	+9.2300000E+02	+7.8600000E+02	+7.9292016E+02
148.0	2	+7.8550000E+02	+4.8790367E+01	+8.2000000E+02	+7.5100000E+02	+7.8841699E+02
155.0	3	+7.2266650E+02	+2.3586719E+01	+7.4500000E+02	+6.9800000E+02	+7.7790991E+02
161.0	3	+7.5133325E+02	+1.3479366E+02	+8.6400000E+02	+6.0200000E+02	+7.6890405E+02
165.0	3	+6.9766650E+02	+6.0863234E+01	+7.6200000E+02	+6.4100000E+02	+7.6289990E+02
178.0	3	+7.6700000E+02	+5.3357286E+01	+8.0500000E+02	+7.0600000E+02	+7.4338696E+02
183.0	3	+7.4433325E+02	+8.7145472E+01	+8.1200000E+02	+6.4600000E+02	+7.3588183E+02
195.0	3	+8.0566650E+02	+8.6635959E+01	+8.7200000E+02	+7.0500000E+02	+7.1786987E+02
209.0	3	+6.9666650E+02	+3.1895663E+01	+7.3400000E+02	+6.7200000E+02	+6.9685571E+02
212.0	6	+6.9600000E+02	+4.1689327E+01	+7.4900000E+02	+6.4200000E+02	+6.9235278E+02
222.0	3	+8.5833325E+02	+2.5658007E+01	+8.8000000E+02	+8.3000000E+02	+6.7734252E+02
228.0	6	+7.6150000E+02	+2.5680732E+01	+7.8800000E+02	+7.1500000E+02	+6.6833666E+02
251.0	6	+4.5250000E+02	+1.6694310E+01	+4.6800000E+02	+4.2900000E+02	+6.3381347E+02

II STAGE DSCT MTRS ONLY,OUTER,AXIAL POS,BIAXIAL CHS=0.2 IN/MIN, MODULUS

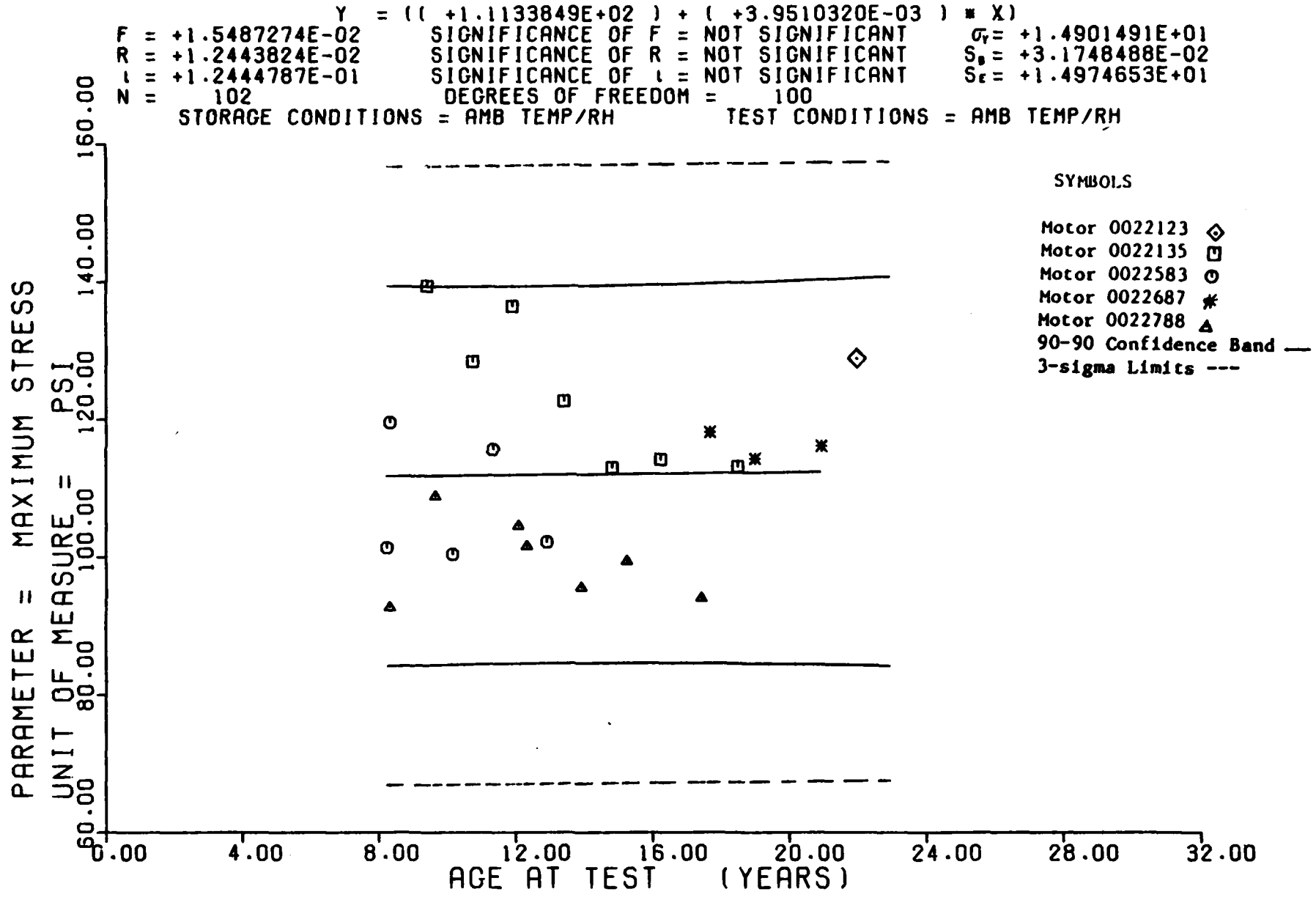

Y = ((+1.1133849E+02) + (+3.9510320E-03) * X)
F = +1.5487274E-02 SIGNIFICANCE OF F = NOT SIGNIFICANT σY = +1.4901491E+01
R = +1.2443824E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT Sb = +3.1748488E-02
ι = +1.2444787E-01 SIGNIFICANCE OF ι = NOT SIGNIFICANT Sε = +1.4974653E+01
N = 102 DEGREES OF FREEDOM = 100
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MAXIMUM STRESS
UNIT OF MEASURE = PSI
160.00
140.00
120.00
100.00
80.00
60.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II DISSECTED MTRS,INNER,AXIAL POS. BIAXIAL CHS=0.2 IN/MIN,MAX STRESS

Figure 19

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	6	+1.0133332E+02	+1.0013324E+01	+1.1600000E+02	+9.1000000E+01	+1.1722964E+02
100.0	8	+9.9375000E+01	+1.3479481E+01	+1.2100000E+02	+8.6000000E+01	+1.1733505E+02
113.0	8	+1.3937500E+02	+8.5513156E+00	+1.4900000E+02	+1.2700000E+02	+1.1794495E+02
116.0	8	+1.0881115E+02	+2.0351905E+00	+1.1076998E+02	+1.0468998E+02	+1.1796795E+02
122.0	8	+1.0042492E+02	+4.9396021E+00	+1.0586999E+02	+9.4229995E+01	+1.1832051E+02
129.0	8	+1.2839617E+02	+5.4958664E+00	+1.3267999E+02	+1.1665999E+02	+1.1884917E+02
136.0	3	+1.1561994E+02	+5.4480992E+00	+1.2177999E+02	+1.1143998E+02	+1.1887583E+02
143.0	3	+1.3641992E+02	+6.9537421E-01	+1.3717999E+02	+1.3589999E+02	+1.1993439E+02
145.0	3	+1.0451325E+02	+1.5647966E+00	+1.0629998E+02	+1.0342999E+02	+1.1991139E+02
148.0	3	+1.0155329E+02	+1.2785654E+00	+1.0289999E+02	+1.0035998E+02	+1.1992323E+02
155.0	3	+1.0219326E+02	+1.9096078E+00	+1.0406999E+02	+1.0025999E+02	+1.1995489E+02
161.0	3	+1.2264997E+02	+8.5328667E-01	+1.2347999E+02	+1.2177999E+02	+1.1997459E+02
167.0	6	+9.5566558E+01	+6.5916284E+00	+1.0339999E+02	+8.3500000E+01	+1.1999830E+02
178.0	3	+1.1298330E+02	+1.2555533E+01	+1.2664999E+02	+1.0195999E+02	+1.2004176E+02
183.0	3	+9.9416580E+01	+8.0050490E-01	+1.0029998E+02	+9.8789993E+01	+1.2006152E+02
195.0	2	+1.1413998E+02	+9.9419973E+00	+1.2116999E+02	+1.0710998E+02	+1.2010833E+02
209.0	3	+9.4019927E+01	+5.3022823E-01	+9.4609985E+01	+9.3649993E+01	+1.2016434E+02
212.0	6	+1.1812158E+02	+9.0041784E+00	+1.3273999E+02	+1.0325000E+02	+1.2017610E+02
222.0	3	+1.1311994E+02	+1.9302784E+00	+1.1435998E+02	+1.1089999E+02	+1.2021562E+02
228.0	6	+1.1425495E+02	+1.1017208E+00	+1.1536999E+02	+1.1277999E+02	+1.2023971E+02
251.0	6	+1.1608821E+02	+1.3831803E+01	+1.2755999E+02	+9.1019989E+01	+1.2033029E+02

STAGE II DISSECTED MTRS,INNER,AXIAL PCS. BIAXIAL CHS=0.2 IN/MIN,MAX STRESS

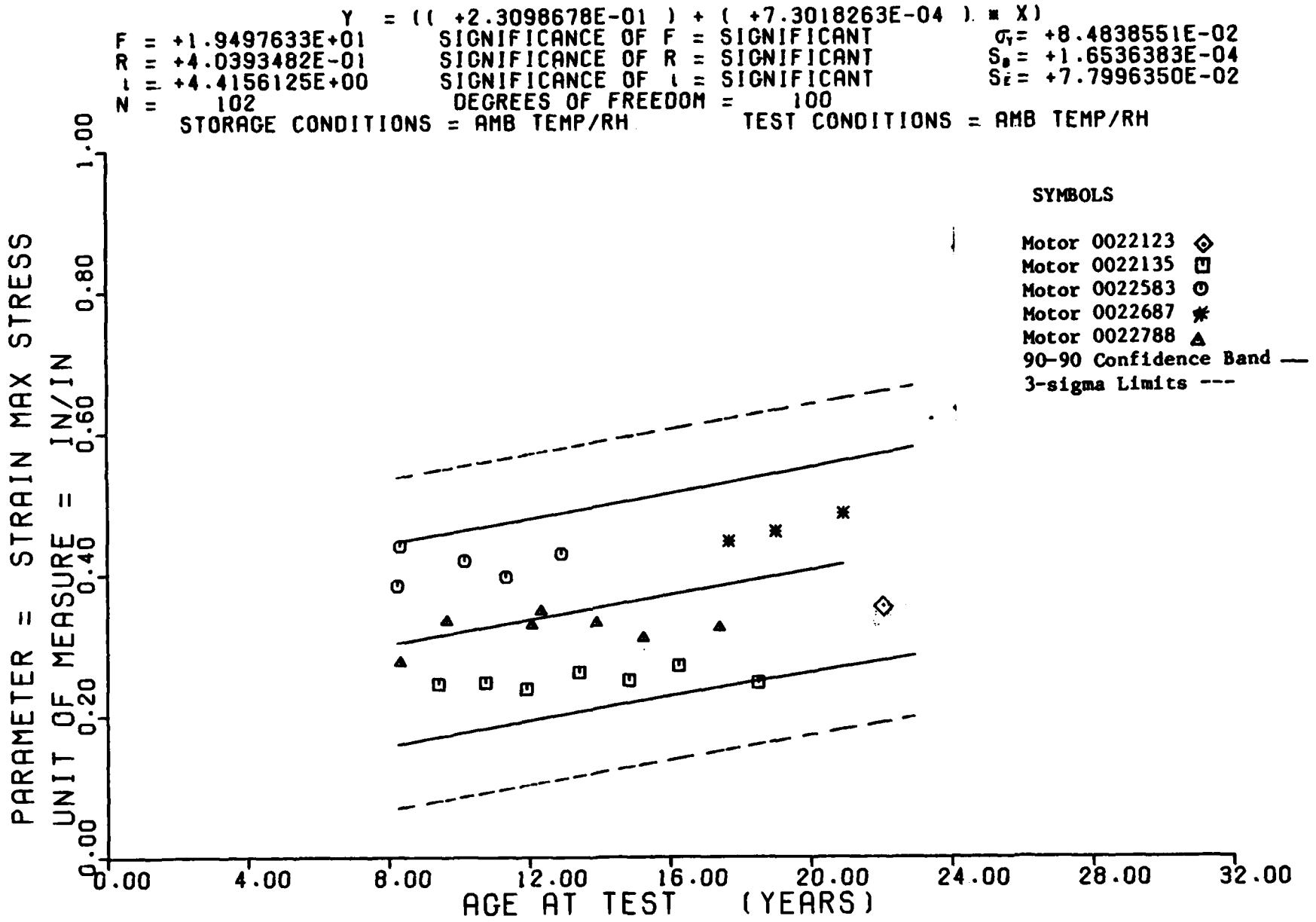

Y = ((+2.3098678E-01) + (+7.3018263E-04) * X)
F = +1.9497633E+01 SIGNIFICANCE OF F = SIGNIFICANT σ1 = +8.4838551E-02
R = +4.0393482E-01 SIGNIFICANCE OF R = SIGNIFICANT Sb = +1.6536383E-04
t = +4.4156125E+00 SIGNIFICANCE OF t = SIGNIFICANT Sε = +7.7996350E-02
N = 102 DEGREES OF FREEDOM = 100
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN MAX STRESS
UNIT OF MEASURE = IN/IN
0.00
0.20
0.40
0.60
0.80
1.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS,INNER,AXIAL POS,BIAXIAL CHS=0.2 IN/MIN,STRAIN MAX STRS.

Figure 20

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	6	+3.8416635E-01	+4.5615502E-02	+4.5499998E-01	+3.3299994E-01	+3.9327481E-01
100.0	8	+3.1737470E-01	+7.6834821E-02	+4.4599997E-01	+2.5699996E-01	+3.9407502E-01
113.0	8	+2.4537479E-01	+7.1968256E-03	+2.5499999E-01	+2.3399996E-01	+3.1349736E-01
116.0	8	+3.3459973E-01	+1.2959607E-02	+3.5559999E-01	+3.1869995E-01	+3.1568705E-01
122.0	8	+4.1987466E-01	+2.8429686E-02	+4.6479994E-01	+3.8099999E-01	+3.2086941E-01
129.0	8	+2.4746227E-01	+7.1599830E-03	+2.5649994E-01	+2.3749995E-01	+3.2518429E-01
136.0	3	+3.5709579E-01	+3.2399464E-02	+4.1979998E-01	+3.5999995E-01	+3.3029156E-01
143.0	3	+2.3809993E-01	+6.2637708E-03	+2.4409997E-01	+2.3159998E-01	+3.3540294E-01
145.0	3	+3.2849997E-01	+1.6768139E-02	+3.3949995E-01	+3.0919998E-01	+3.3686321E-01
148.0	3	+3.4823322E-01	+1.3856319E-02	+3.6419999E-01	+3.3939999E-01	+3.3905399E-01
155.0	3	+4.2963314E-01	+2.2132866E-02	+4.5509999E-01	+4.1509997E-01	+3.4416504E-01
161.0	3	+2.6186662E-01	+3.4973955E-03	+2.6539999E-01	+2.5839996E-01	+3.4854614E-01
167.0	6	+3.3121615E-01	+2.3187994E-02	+3.6209994E-01	+2.9719996E-01	+3.5292726E-01
178.0	3	+2.5019997E-01	+1.3201087E-02	+2.6539999E-01	+2.4159997E-01	+3.6169939E-01
183.0	3	+3.0993330E-01	+2.4837435E-02	+3.3819997E-01	+2.9159998E-01	+3.6461019E-01
195.0	2	+2.7094995E-01	+2.1707839E-02	+2.8629994E-01	+2.5559997E-01	+3.7337237E-01
209.0	3	+3.2433325E-01	+4.7230701E-03	+3.2799994E-01	+3.1999994E-01	+3.8359403E-01
212.0	6	+4.4654971E-01	+3.1313242E-02	+5.0929999E-01	+4.2589998E-01	+3.8578546E-01
222.0	3	+2.4649995E-01	+9.6589131E-03	+2.5659996E-01	+2.3689997E-01	+3.9398732E-01
228.0	6	+4.5996630E-01	+1.7264578E-02	+4.8509997E-01	+4.3839997E-01	+3.9746938E-01
251.0	6	+4.8538285E-01	+5.9416048E-02	+5.3799998E-01	+3.7329995E-01	+4.1426250E-01

II STAGE CSCT MTRS,INNER,AXIAL PCS,BIAXIAL CHS=0.2 IN/MIN,STRAIN MAX STPS.

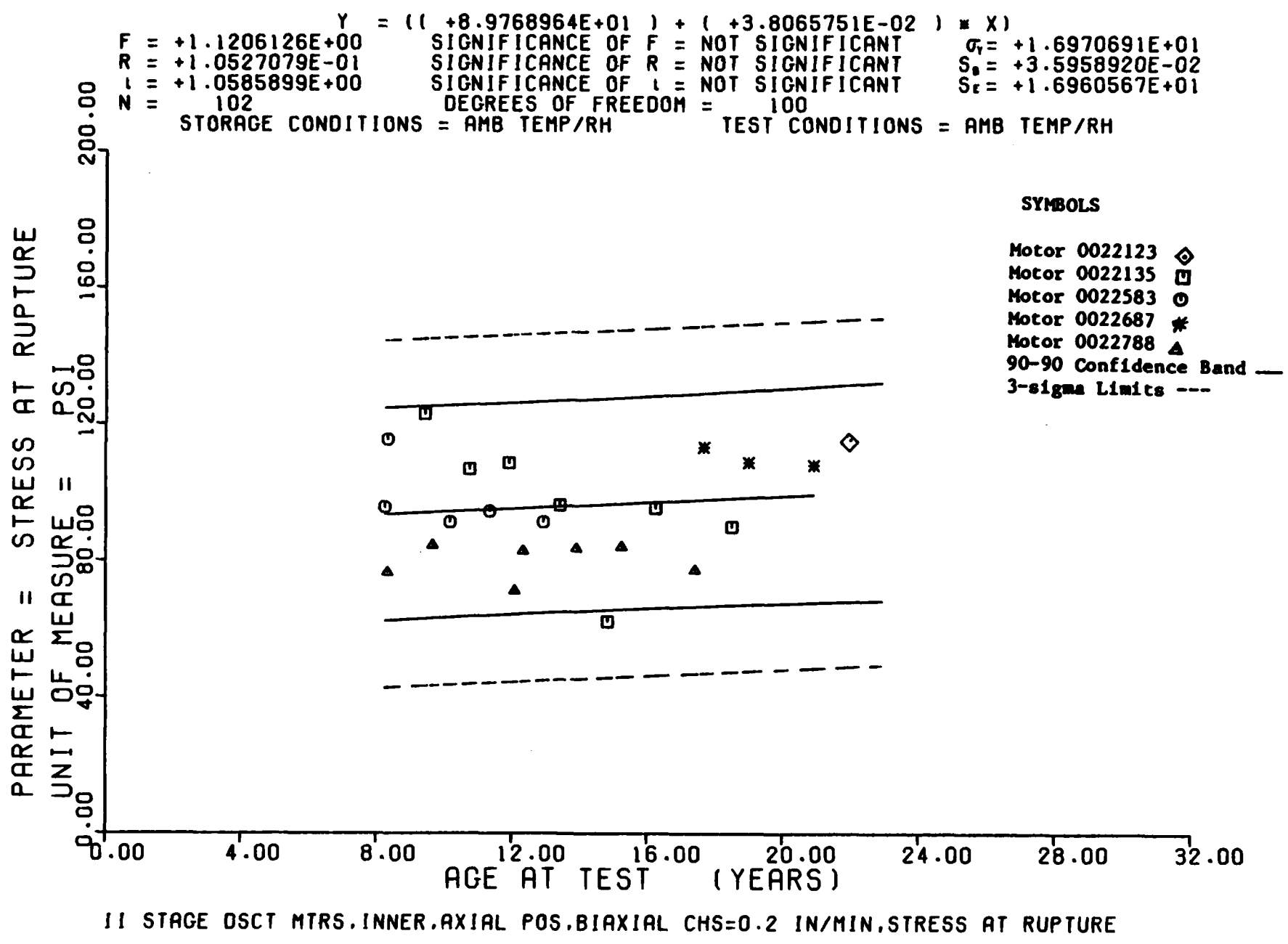

Y = ((+8.9768964E+01) + (+3.8065751E-02) * X)
F = +1.1206126E+00 SIGNIFICANCE OF F = NOT SIGNIFICANT σy = +1.6970691E+01
R = +1.0527079E-01 SIGNIFICANCE OF R = NOT SIGNIFICANT Sb = +3.5958920E-02
t = +1.0585899E+00 SIGNIFICANCE OF t = NOT SIGNIFICANT Sε = +1.6960567E+01
N = 102 DEGREES OF FREEDOM = 100
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS AT RUPTURE
UNIT OF MEASURE = PSI
0.00
40.00
80.00
120.00
160.00
200.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS.INNER.AXIAL POS.BIAXIAL CHS=0.2 IN/MIN.STRESS AT RUPTURE

Figure 21

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	6	+9.5666656E+01	+5.1576745E+00	+1.0900000E+02	+8.5000000E+01	+9.3537469E+01
100.0	8	+8.6250000E+01	+1.9213527E+01	+1.1900000E+02	+6.7000000E+01	+9.3575531E+01
113.0	8	+1.2300000E+02	+3.8561076E+00	+1.3300000E+02	+1.0300000E+02	+9.4075385E+01
116.0	8	+8.4517456E+01	+1.0633663E+01	+9.5469585E+01	+6.9509994E+01	+9.4194585E+01
122.0	8	+9.1256173E+01	+1.8129583E+00	+9.3969585E+01	+8.7899969E+01	+9.4412979E+01
129.0	8	+1.0688238E+02	+9.4569705E+00	+1.1958599E+02	+9.3309997E+01	+9.4679443E+01
136.0	3	+9.4529937E+01	+3.7881680E+00	+9.7159988E+01	+9.0199987E+01	+9.4945892E+01
143.0	3	+1.0866992E+02	+4.5314278E+00	+1.1355599E+02	+1.0461999E+02	+9.5212356E+01
145.0	3	+7.1163314E+01	+1.9433276E+01	+8.5939987E+01	+4.9149993E+01	+9.5299497E+01
148.0	3	+8.2873321E+01	+3.5900830E+00	+8.6769589E+01	+7.9699996E+01	+9.5412694E+01
155.0	3	+9.1386627E+01	+2.7558771E+00	+9.4419598E+01	+8.9639993E+01	+9.5660143E+01
161.0	3	+9.6276611E+01	+1.8050695E+00	+9.8199596E+01	+9.4629989E+01	+9.5857537E+01
167.0	6	+8.3704956E+01	+6.2961291E+00	+9.4899593E+01	+7.7099990E+01	+9.6125934E+01
178.0	3	+6.2216644E+01	+4.1822525E+00	+6.5359985E+01	+5.7469985E+01	+9.6544662E+01
183.0	3	+8.4143325E+01	+2.5851721E+00	+8.6750000E+01	+8.1579986E+01	+9.6774985E+01
195.0	2	+9.5424987E+01	+2.6521754E+00	+9.7299587E+01	+9.3549987E+01	+9.7191772E+01
209.0	3	+7.7299587E+01	+1.5976184E+00	+7.9500000E+01	+7.5599990E+01	+9.7724780E+01
212.0	6	+1.1328991E+02	+8.5248100E+00	+1.2547599E+02	+1.0129999E+02	+9.7838807E+01
222.0	3	+8.9953277E+01	+9.4354736E-01	+9.0699596E+01	+8.8899993E+01	+9.8219559E+01
228.0	6	+1.0876992E+02	+1.9256597E+00	+1.1093599E+02	+1.0659999E+02	+9.8447952E+01
251.0	6	+1.0800325E+02	+1.5371035E+01	+1.2020599E+02	+7.9859985E+01	+9.9323455E+01

II STAGE DSCT MTRS,INNER,AXIAL PCS,BIAXIAL CHS=0.2 IN/MIN,STRESS AT RUPTURE

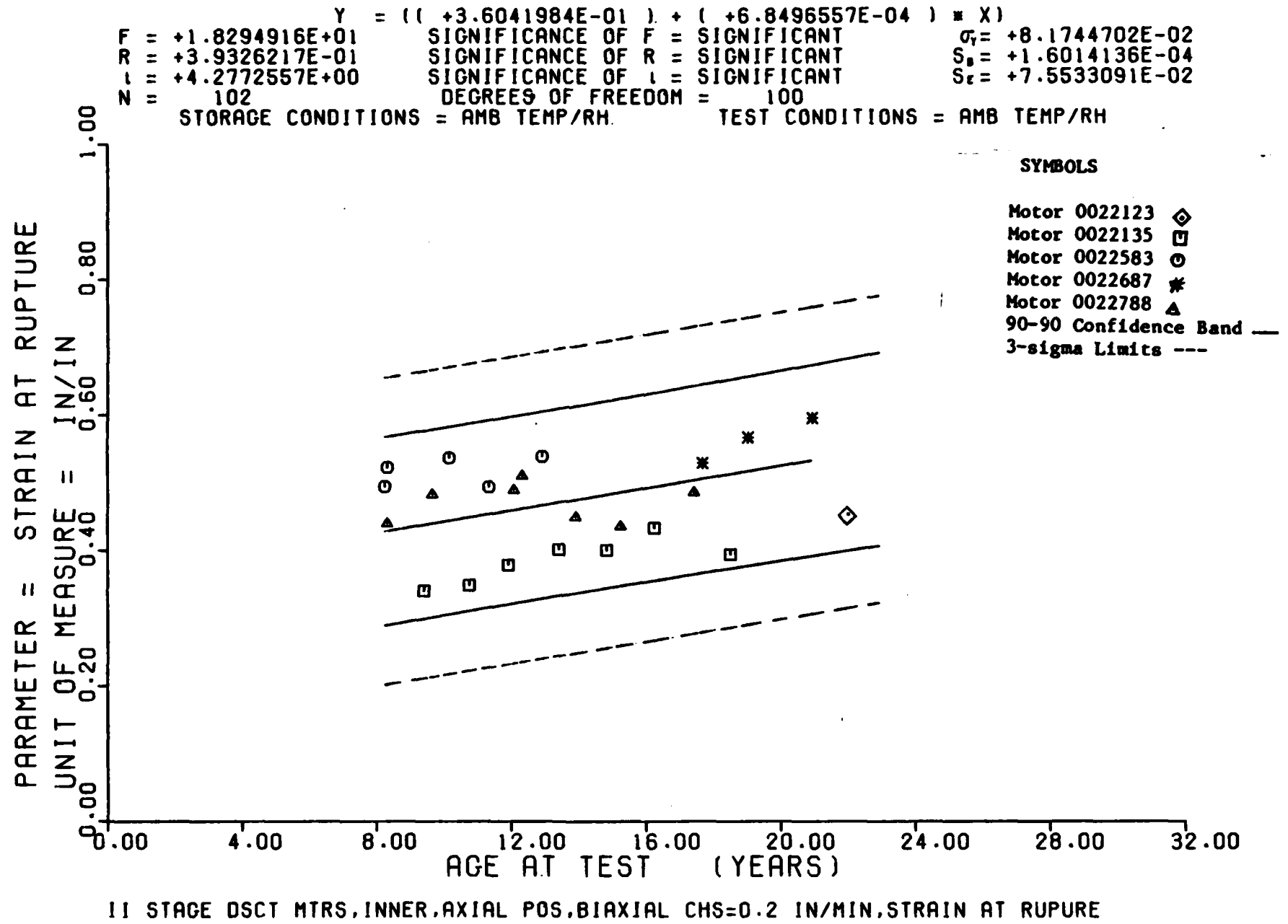

Y = ((+3.6041984E-01) + (+6.8496557E-04) * X)
F = +1.8294916E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +3.9326217E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +4.2772557E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 102 DEGREES OF FREEDOM = 100
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
σY = +8.1744702E-02
SB = +1.6014136E-04
Sε = +7.5533091E-02
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN AT RUPTURE
UNIT OF MEASURE = IN/IN
0.00
0.20
0.40
0.60
0.80
1.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS,INNER,AXIAL POS,BIAXIAL CHS=0.2 IN/MIN,STRAIN AT RUPURE

Figure 22

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	6	+4.9416637E-01	+6.2359299E-02	+5.5999994E-01	+4.1599994E-01	+4.2931415E-01
100.0	8	+4.6037447E-01	+4.7562185E-02	+5.6299996E-01	+4.0199995E-01	+4.2891679E-01
113.0	8	+3.4049963E-01	+2.4674034E-02	+3.8099998E-01	+3.0299997E-01	+4.3792401E-01
116.0	8	+4.8238706E-01	+1.9589492E-02	+5.0919997E-01	+4.4949996E-01	+4.3987584E-01
122.0	8	+5.3649973E-01	+3.9894933E-02	+6.0439997E-01	+4.8509997E-01	+4.4398564E-01
129.0	8	+3.4856715E-01	+2.2185838E-02	+3.7709999E-01	+3.2129997E-01	+4.4878035E-01
136.0	3	+4.9359989E-01	+1.1388937E-02	+5.0109994E-01	+4.8059999E-01	+4.5357513E-01
143.0	3	+3.7826633E-01	+2.7181972E-02	+4.0029996E-01	+3.4799997E-01	+4.5836991E-01
145.0	3	+4.8893320E-01	+8.0246336E-03	+4.9309998E-01	+4.8319995E-01	+4.5973999E-01
148.0	3	+5.0989373E-01	+2.0276339E-02	+5.3179997E-01	+4.9179995E-01	+4.6179473E-01
155.0	3	+5.3843307E-01	+5.7146655E-02	+6.0369998E-01	+4.9739998E-01	+4.6659951E-01
161.0	3	+4.0073329E-01	+1.6270801E-02	+4.1549998E-01	+3.8029998E-01	+4.7069925E-01
167.0	6	+4.4939976E-01	+2.2589955E-02	+4.8249995E-01	+4.2399996E-01	+4.7480305E-01
178.0	3	+4.0033304E-01	+2.0798500E-02	+4.2399996E-01	+3.8499999E-01	+4.8234367E-01
183.0	3	+4.3556654E-01	+9.3735226E-03	+5.0579994E-01	+3.4299997E-01	+4.8576449E-01
195.0	2	+4.3329995E-01	+1.8893081E-02	+4.4659996E-01	+4.1999995E-01	+4.9369999E-01
209.0	3	+4.8563319E-01	+3.0916976E-02	+5.0529998E-01	+4.4999998E-01	+5.0357764E-01
212.0	6	+5.2871620E-01	+4.0176787E-02	+5.8889997E-01	+4.7499996E-01	+5.0563251E-01
222.0	3	+3.9393329E-01	+1.4242659E-02	+4.0969997E-01	+3.8199996E-01	+5.1249216E-01
228.0	6	+5.6646615E-01	+3.7288596E-02	+6.1599999E-01	+5.0499999E-01	+5.1659196E-01
251.0	6	+5.9526634E-01	+3.9995651E-02	+6.3709998E-01	+5.1999998E-01	+5.3274618E-01

II STAGE CSCT MTRS,INNER,AXIAL PCS,BIAXIAL CHS=0.2 IN/MIN,STRAIN AT RUPURE

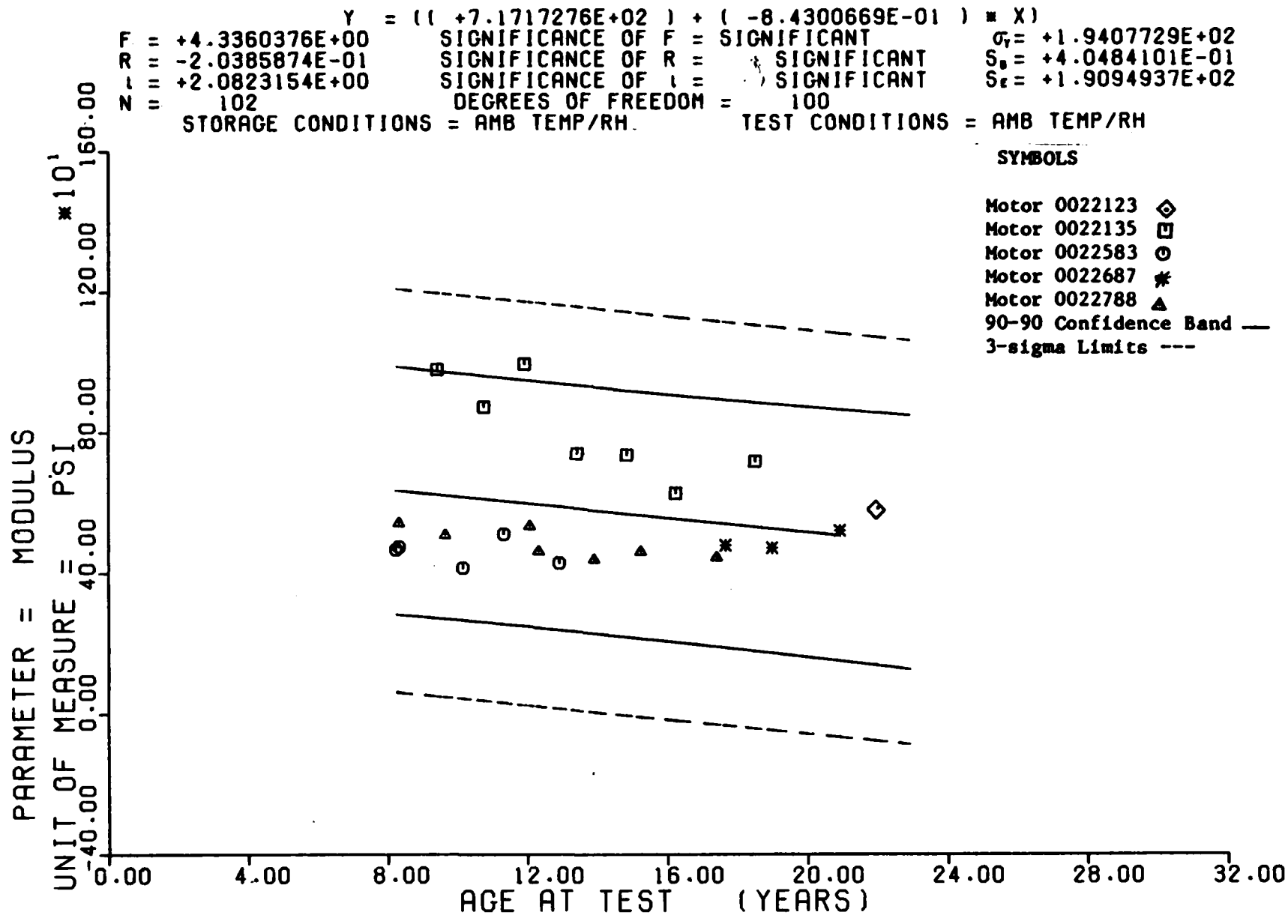

Y = ((+7.1717276E+02) + (-8.4300669E-01) * X)
F = +4.3360376E+00 SIGNIFICANCE OF F = SIGNIFICANT
R = -2.0385874E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +2.0823154E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 102 DEGREES OF FREEDOM = 100
σ_Y = +1.9407729E+02
S_b = +4.0484101E-01
S_ϵ = +1.9094937E+02
STORAGE CONDITIONS = AMB TEMP/RH
TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MODULUS
UNIT OF MEASURE = PSI *10¹
160.00
120.00
80.00
40.00
0.00
-40.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS, INNER, AXIAL POS, BIAXIAL CHS=0.2 IN/MIN, MODULUS

Figure 23

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	6	+4.656666E+02	+1.2331855E+02	+6.4400000E+02	+3.5500000E+02	+6.3371599E+02
100.0	8	+5.2437500E+02	+5.7837055E+01	+6.1600000E+02	+4.4800000E+02	+6.3287307E+02
113.0	8	+5.7750000E+02	+9.2659129E+01	+1.0800000E+03	+8.2000000E+02	+6.2101334E+02
116.0	8	+5.0662500E+02	+3.2802166E+01	+5.6300000E+02	+4.6200000E+02	+6.1938378E+02
122.0	8	+4.1287500E+02	+3.1887147E+01	+4.4500000E+02	+3.5600000E+02	+6.1432502E+02
129.0	8	+8.7000000E+02	+3.2513733E+01	+9.0100000E+02	+8.0100000E+02	+6.0842491E+02
136.0	3	+5.0666650E+02	+5.7352719E+01	+5.6200000E+02	+4.4800000E+02	+6.0252368E+02
143.0	3	+9.9166650E+02	+7.9254863E+01	+1.0670001E+03	+9.1000000E+02	+5.9652283E+02
145.0	3	+5.3133325E+02	+3.3560889E+01	+5.6600000E+02	+4.9900000E+02	+5.9436765E+02
148.0	3	+4.5933325E+02	+1.7785762E+01	+4.7500000E+02	+4.4000000E+02	+5.9240771E+02
155.0	3	+4.2766650E+02	+1.2741009E+01	+4.3600000E+02	+4.1300000E+02	+5.8650663E+02
161.0	3	+7.3633325E+02	+3.5232560E+01	+7.6900000E+02	+6.9900000E+02	+5.8144848E+02
167.0	6	+4.3766650E+02	+4.1706913E+01	+4.8800000E+02	+3.6900000E+02	+5.7639062E+02
178.0	3	+7.3466650E+02	+9.4203680E+01	+8.4300000E+02	+6.7200000E+02	+5.6711743E+02
183.0	3	+4.5966650E+02	+3.2883633E+01	+4.9700000E+02	+4.3500000E+02	+5.6209334E+02
195.0	2	+6.2500000E+02	+1.0889444E+02	+7.0200000E+02	+5.4800000E+02	+5.5279637E+02
209.0	3	+4.4333325E+02	+1.2662279E+01	+4.5300000E+02	+4.2900000E+02	+5.4099413E+02
212.0	6	+4.7750000E+02	+3.3126409E+00	+4.8900000E+02	+4.7000000E+02	+5.3845532E+02
222.0	3	+7.1533325E+02	+5.5220769E+01	+7.7600000E+02	+6.6800000E+02	+5.3002514E+02
228.0	6	+4.7016650E+02	+1.5689699E+01	+4.8300000E+02	+4.4000000E+02	+5.2496704E+02
251.0	6	+5.1850000E+02	+6.3509841E+01	+6.2800000E+02	+4.6500000E+02	+5.0557199E+02

II STAGE DSCT MTRS,INNER,AXIAL POS,BIAXIAL CHS=0.2 IN/MIN, MODULUS

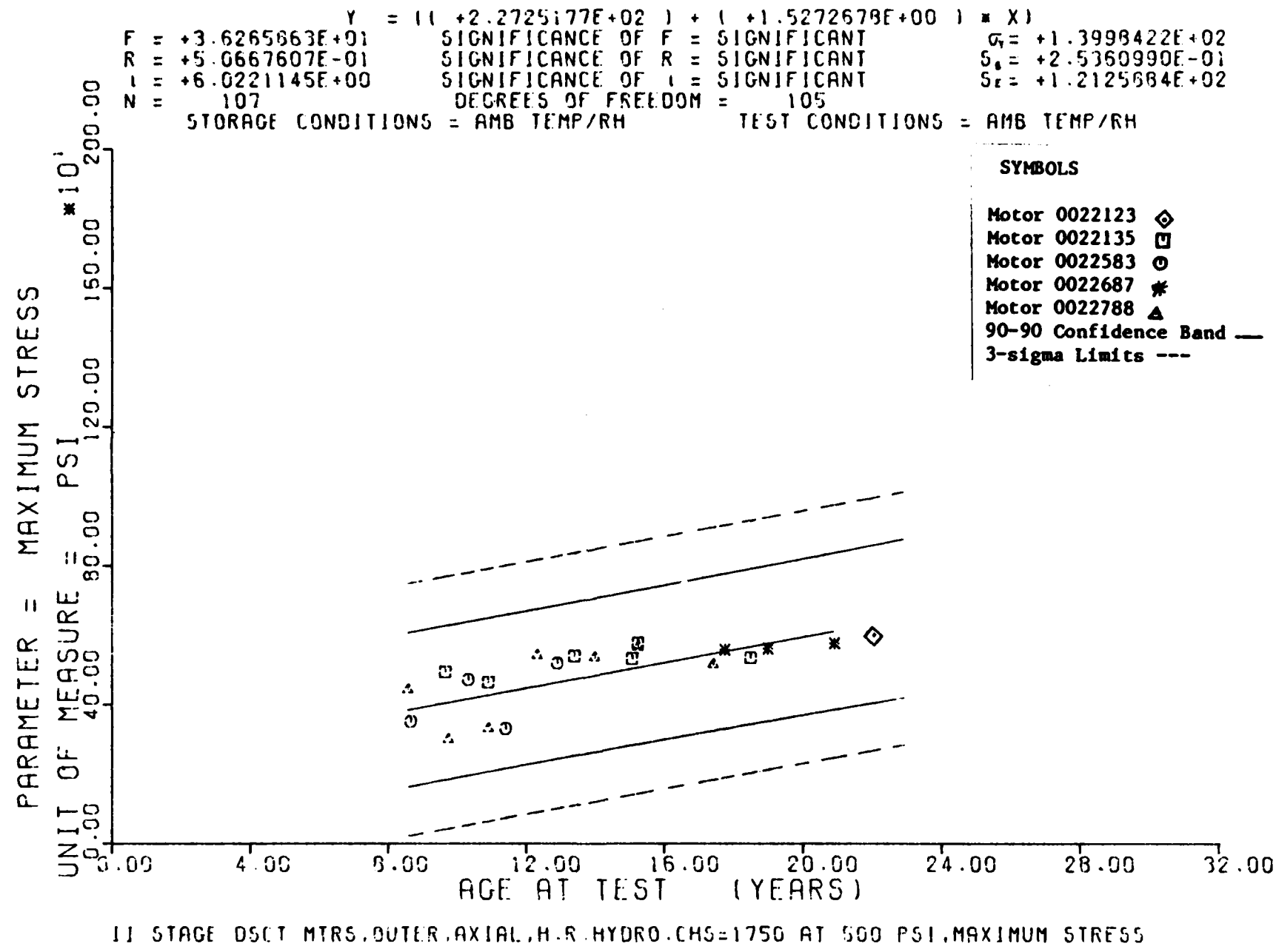

Y = (+2.2725177E+02) + (+1.5272678E+00) * X)
F = +3.6265863E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +5.0667607E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +6.0221145E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 107 DEGREES OF FREEDOM = 105
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MAXIMUM STRESS
UNIT OF MEASURE = PSI *10³
0.00
40.00
80.00
120.00
150.00
200.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS,OUTER,AXIAL,H-R HYDRO.CHS=1750 AT 500 PSI,MAXIMUM STRESS

Figure 24

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	7	+4.4285693E+02	+4.8795003E+00	+4.5000000E+02	+4.4000000E+02	+3.8456030E+02
104.0	7	+3.5214282E+02	+2.3248143E+01	+3.8500000E+02	+3.2000000E+02	+3.8608740E+02
116.0	8	+4.5437500E+02	+1.8600595E+01	+5.0500000E+02	+4.5000000E+02	+4.0441479E+02
117.0	17	+2.9954711E+02	+2.5446975E+02	+5.3400000E+02	+4.6399993E+00	+4.0594189E+02
124.0	8	+4.7163589E+02	+3.2672605E+01	+5.1744995E+02	+4.2952978E+02	+4.1663281E+02
131.0	11	+4.2857934E+02	+6.9663695E+01	+5.0742993E+02	+3.0756982E+02	+4.2732373E+02
137.0	3	+3.2146972E+02	+1.1748934E+01	+3.4443994E+02	+3.2154980E+02	+4.3648730E+02
148.0	3	+5.4205981E+02	+2.1834794E+00	+5.4407983E+02	+5.3983984E+02	+4.5328735E+02
155.0	3	+5.1894311E+02	+6.1236293E+00	+5.2518994E+02	+5.1295996E+02	+4.6397827E+02
161.0	3	+5.3964306E+02	+2.1730326E+00	+5.4207983E+02	+5.3830981E+02	+4.7314184E+02
168.0	3	+5.3674316E+02	+5.2441832E+00	+5.4028979E+02	+5.3072998E+02	+4.8383276E+02
181.0	3	+5.3312304E+02	+2.6153435E+00	+5.3578979E+02	+5.3061987E+02	+5.0368725E+02
183.0	6	+5.7155468E+02	+7.2569809E+00	+5.8110986E+02	+5.6230981E+02	+5.0674169E+02
209.0	4	+5.1540234E+02	+1.6777531E+00	+5.1689990E+02	+5.1359985E+02	+5.4645068E+02
213.0	6	+5.5744970E+02	+8.7619177E+00	+5.6937988E+02	+5.4351977E+02	+5.5255981E+02
222.0	3	+5.3465970E+02	+5.7915988E+00	+5.3847998E+02	+5.2804980E+02	+5.6630517E+02
228.0	6	+5.6059472E+02	+4.2242251E+00	+5.6818994E+02	+5.5569995E+02	+5.7546875E+02
251.0	6	+5.7592993E+02	+1.1859873E+01	+5.8400000E+02	+5.5207983E+02	+6.1059594E+02

II STAGE DSCT MTRS,CUTER,AXIAL,H.R.HYDRC.CHS=1750 AT 500 PSI,MAXIMUM STRESS

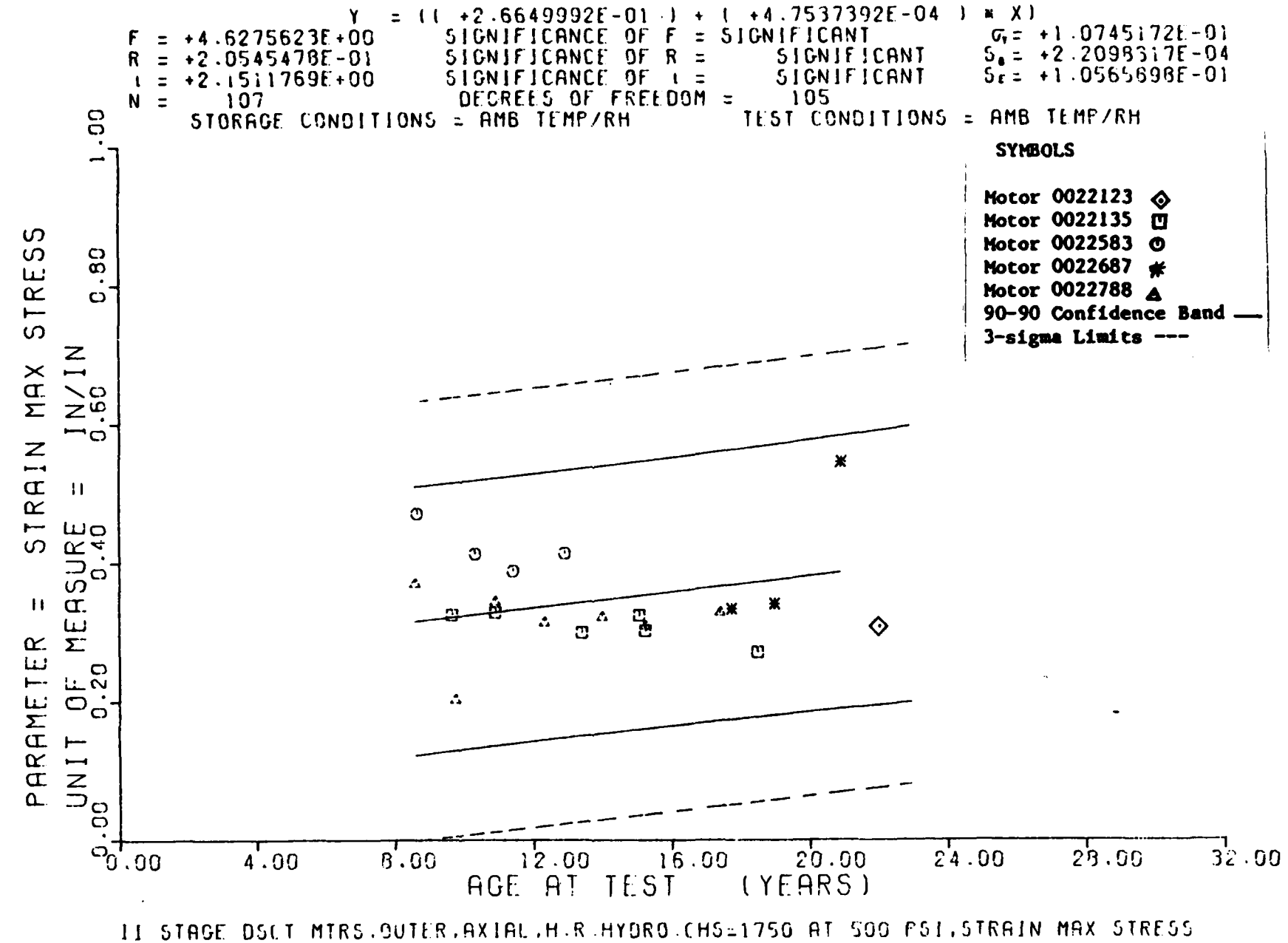

Y = (+2.6649992E-01) + (+4.7537392E-04) * X)
F = +4.6275623E+00 SIGNIFICANCE OF F = SIGNIFICANT
R = +2.0545478E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +2.1511769E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 107 DEGREES OF FREEDOM = 105
σ_Y = +1.0745172E-01
S_θ = +2.2098317E-04
S_ε = +1.0565698E-01
STORAGE CONDITIONS = AMB TEMP/RH
TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN MAX STRESS
UNIT OF MEASURE = IN/IN
0.00
0.20
0.40
0.60
0.80
1.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS.OUTER.AXIAL.H.R.HYDRO.CHS=1750 AT 500 PSI.STRAIN MAX STRESS

Figure 25

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	7	+3.6899960E-01	+2.6632523E-02	+4.1599994E-01	+3.3999997E-01	+3.1546342E-01
104.0	7	+4.7057110E-01	+4.6343172E-02	+5.1499998E-01	+3.9599996E-01	+3.1593877E-01
116.0	8	+3.2499980E-01	+1.8418838E-02	+3.4799998E-01	+3.0599999E-01	+3.2164329E-01
117.0	17	+2.0218193E-01	+1.4544967E-01	+3.7799996E-01	+3.0399996E-02	+3.2211863E-01
124.0	8	+4.1264975E-01	+4.1229920E-02	+4.7869998E-01	+3.5139995E-01	+3.2544624E-01
131.0	11	+3.3254510E-01	+5.3253606E-02	+4.1689997E-01	+2.4079996E-01	+3.2877385E-01
137.0	3	+3.8773310E-01	+1.5678870E-02	+4.0539997E-01	+3.7549996E-01	+3.3162611E-01
148.0	3	+3.1339997E-01	+4.1201543E-03	+3.1809997E-01	+3.1039994E-01	+3.3685523E-01
155.0	3	+4.1333323E-01	+8.3611193E-03	+4.1939997E-01	+4.0379995E-01	+3.4018284E-01
161.0	3	+2.9933327E-01	+8.8484520E-03	+3.0929994E-01	+2.9239994E-01	+3.4303510E-01
168.0	3	+3.2136660E-01	+1.4381964E-02	+3.3739995E-01	+3.0959999E-01	+3.4636270E-01
181.0	3	+3.2406663E-01	+1.1538418E-02	+3.3349996E-01	+3.1119996E-01	+3.5254257E-01
183.0	6	+3.0524981E-01	+1.0348606E-02	+3.1709998E-01	+2.9239994E-01	+3.5349333E-01
209.0	4	+3.2762479E-01	+1.6228900E-02	+3.4299999E-01	+3.0499994E-01	+3.6585307E-01
213.0	6	+3.3316624E-01	+1.0152957E-02	+3.5079997E-01	+3.2219994E-01	+3.6775451E-01
222.0	3	+2.7083331E-01	+4.8559083E-03	+2.7439999E-01	+2.6529997E-01	+3.7203288E-01
223.0	6	+3.4026634E-01	+1.0921245E-02	+3.6089998E-01	+3.2889997E-01	+3.7488514E-01
251.0	6	+5.4433310E-01	+6.9343640E-02	+6.7699998E-01	+4.7499996E-01	+3.8581877E-01

II STAGE CSCT MTRS,OUTER,AXIAL,H.R.HYDRO.CHS=1750 AT 500 PSI,STRAIN MAX STRESS

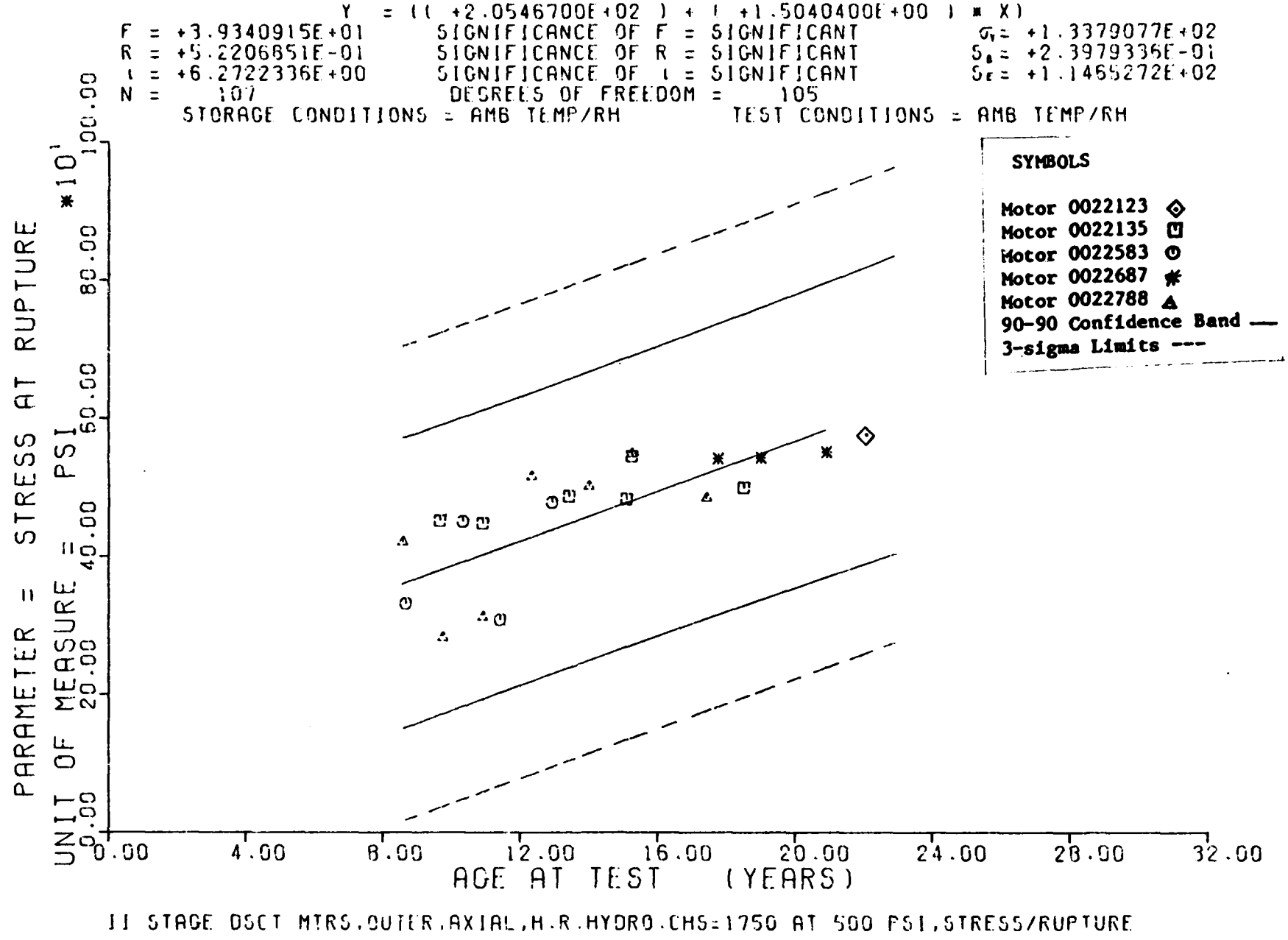

Y = (+2.0546700E+02) + (+1.5040400E+00) * X)
F = +3.9340915E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +5.2206851E-01 SIGNIFICANCE OF R = SIGNIFICANT
N = 107 DEGREES OF FREEDOM = 105
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS AT RUPTURE
UNIT OF MEASURE = PSI *10¹
0.00
20.00
40.00
60.00
80.00
100.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE OSCT MTRS.OUTER.AXIAL,H.R.HYDRO.CHS=1750 AT 500 PSI,STRESS/RUPTURE

Figure 26

**** LINEAR REGRESSICN ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATICN	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	7	+4.2071411E+02	+7.3192505E+00	+4.2500000E+02	+4.1000000E+02	+3.6038305E+02
104.0	7	+3.3142846E+02	+2.4446248E+01	+3.6000000E+02	+2.9500000E+02	+3.6188696E+02
116.0	8	+4.5187500E+02	+2.3289712E+01	+4.8000000E+02	+4.1000000E+02	+3.7993554E+02
117.0	17	+2.8236206E+02	+2.4029576E+02	+5.2600000E+02	+4.5099992E+00	+3.8143945E+02
124.0	8	+4.5034716E+02	+4.2432950E+01	+5.0850000E+02	+3.9525000E+02	+3.9196777E+02
131.0	11	+4.1116210E+02	+7.0993177E+01	+4.9643994E+02	+2.8617993E+02	+4.0249609E+02
137.0	3	+3.0639306E+02	+1.1325548E+01	+3.2125976E+02	+2.9994995E+02	+4.1152026E+02
148.0	3	+5.1589990E+02	+3.0239118E-01	+5.1619995E+02	+5.1575000E+02	+4.2806469E+02
155.0	3	+4.7806642E+02	+8.6620583E+00	+4.8806982E+02	+4.7276977E+02	+4.3859301E+02
161.0	3	+4.6722973E+02	+1.2458715E+01	+4.7981982E+02	+4.7406982E+02	+4.4761743E+02
168.0	3	+5.0155981E+02	+1.4274408E+00	+5.0259985E+02	+5.0090000E+02	+4.5814550E+02
181.0	3	+4.8289990E+02	+9.0361205E+00	+4.9296997E+02	+4.7551977E+02	+4.7769824E+02
183.0	6	+5.4661474E+02	+6.9260163E+00	+5.5475976E+02	+5.3985986E+02	+4.8070629E+02
209.0	4	+4.8447485E+02	+7.2978933E+00	+4.9279980E+02	+4.7509985E+02	+5.1981127E+02
213.0	6	+5.4155468E+02	+9.2390532E+00	+5.5291992E+02	+5.2941992E+02	+5.2582739E+02
222.0	3	+4.9906640E+02	+7.7456952E+00	+5.0800000E+02	+4.9439990E+02	+5.3936376E+02
228.0	6	+5.4266308E+02	+6.8350724E+00	+5.5409985E+02	+5.3589990E+02	+5.4838793E+02
251.0	6	+5.5077578E+02	+1.5677772E+01	+5.7115991E+02	+5.2763989E+02	+5.8298095E+02

II STAGE DSCT MTRS.OUTER.AXIAL.H.R.HYDRO.CHS=1750 AT 500 PSI.STRESS/RUPTURE

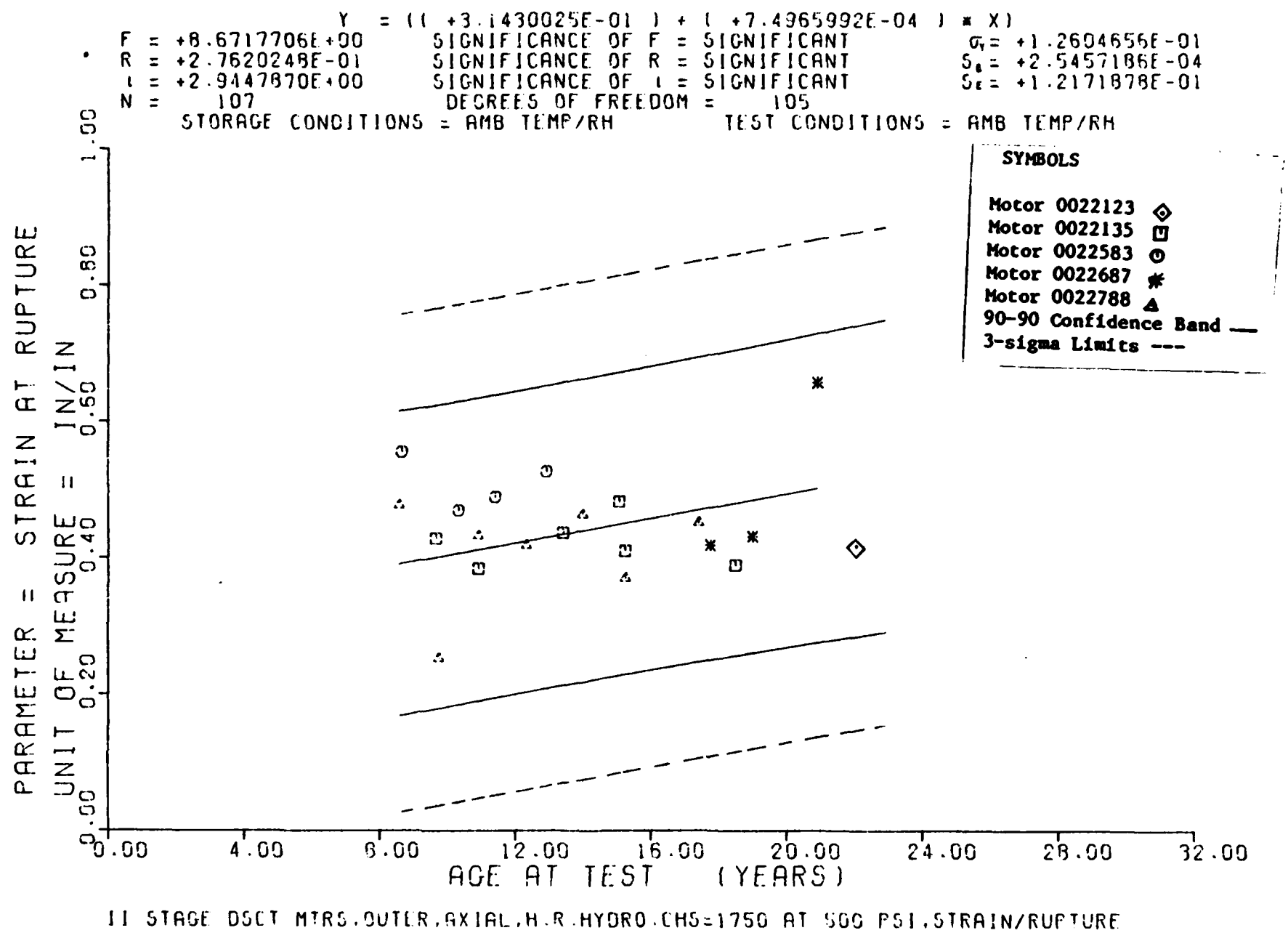

Y = (+3.1430025E-01) + (+7.4965992E-04) * X)
F = +8.6717706E+00 SIGNIFICANCE OF F = SIGNIFICANT
R = +2.7620248E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +2.9447870E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 107 DEGREES OF FREEDOM = 105
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN AT RUPTURE
UNIT OF MEASURE = IN/IN
0.00
0.20
0.40
0.60
0.80
1.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS.OUTER,AXIAL,H.R.HYDRO.CH5=1750 AT 500 PSI.STRAIN/RUPTURE

Figure 27

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	7	+4.772E520E-01	+1.3221743E-02	+4.925S597E-01	+4.5899959E-01	+3.9151519E-01
104.0	7	+5.5542820E-01	+2.0555425E-02	+5.8399599E-01	+5.3399997E-01	+3.9226484E-01
116.0	8	+4.2912471E-01	+2.638127UE-02	+4.5899599E-01	+3.9099597E-01	+4.0126079E-01
117.0	17	+2.5311124E-01	+1.6267787E-01	+4.3855595E-01	+3.8599997E-02	+4.0201044E-01
124.0	8	+4.7016215E-01	+4.5216710E-02	+5.8109598E-01	+4.1989994E-01	+4.0725803E-01
131.0	11	+3.5777225E-01	+5.3216220E-02	+4.5469599E-01	+3.1209999E-01	+4.1250568E-01
137.0	3	+4.8555582E-01	+9.4901110E-03	+4.9855594E-01	+4.7969996E-01	+4.1700363E-01
148.0	3	+4.1875569E-01	+2.4656727E-03	+4.2109596E-01	+4.1629999E-01	+4.2524987E-01
155.0	3	+5.2673304E-01	+8.2685954E-03	+5.3595595E-01	+5.2019995E-01	+4.3049752E-01
161.0	3	+4.3685578E-01	+2.3281198E-03	+4.3949597E-01	+4.3519997E-01	+4.3499547E-01
168.0	3	+4.6326637E-01	+4.8075215E-03	+4.6749597E-01	+4.5809996E-01	+4.4024312E-01
181.0	3	+4.8285596E-01	+8.8826512E-03	+4.9239599E-01	+4.7479959E-01	+4.4998866E-01
183.0	6	+3.9071619E-01	+2.9196230E-02	+4.2195599E-01	+3.4499996E-01	+4.5148801E-01
209.0	4	+4.5155566E-01	+2.3431571E-02	+4.8499595E-01	+4.2999994E-01	+4.7097915E-01
213.0	6	+4.1884576E-01	+1.4755564E-02	+4.3229597E-01	+3.9659994E-01	+4.7397780E-01
222.0	3	+3.8566655E-01	+1.1675602E-02	+3.9999597E-01	+3.7699997E-01	+4.8072475E-01
228.0	6	+4.3193292E-01	+2.0334499E-02	+4.6099596E-01	+4.1299998E-01	+4.8522269E-01
251.0	6	+6.5716630E-01	+7.3698002E-02	+7.4259597E-01	+5.2499997E-01	+5.0246489E-01

II STAGE DSCT MTRS,CUTER,AXIAL,H,R,HYDRO,CHS=1750 AT 500 PSI,STRAIN/RUPTURE

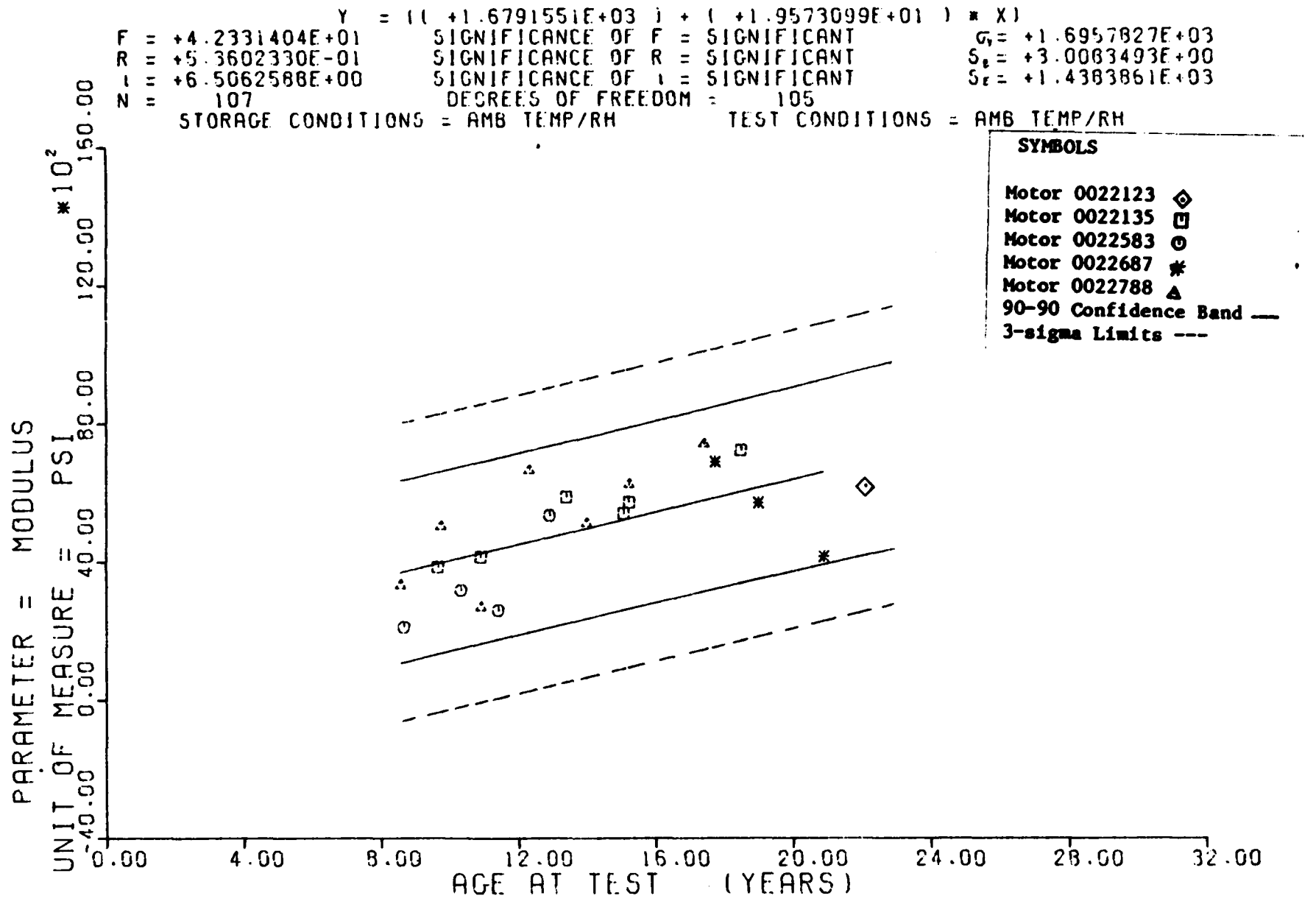

Y = (+1.6791551E+03) + (+1.9573099E+01) * X)
F = +4.2331404E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +5.3602330E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +6.5062588E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 107 DEGREES OF FREEDOM = 105
σ_t = +1.6957827E+03
S_e = +3.0083493E+00
$S_{\bar{x}}$ = +1.4383861E+03
STORAGE CONDITIONS = AMB TEMP/RH
TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MODULUS
UNIT OF MEASURE = PSI *10²
150.00
120.00
80.00
40.00
0.00
-40.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS.OUTER.AXIAL.H.R.HYDRO.CHS=1750 AT 500 PSI. MODULUS

Figure 28

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	7	+3.3142856E+03	+1.7728105E+02	+3.5000000E+03	+3.1000000E+03	+3.6951843E+03
104.0	7	+2.1014284E+03	+1.3605986E+02	+2.3200000E+03	+1.9600000E+03	+3.7147573E+03
116.0	8	+3.8500000E+03	+3.3806170E+02	+4.3000000E+03	+3.2000000E+03	+3.9496345E+03
117.0	17	+5.0176859E+03	+6.7727123E+02	+6.5000000E+03	+3.9430000E+03	+3.9692075E+03
124.0	8	+3.1556750E+03	+3.1661239E+02	+3.4000000E+03	+2.5000000E+03	+4.1062187E+03
131.0	11	+3.7366362E+03	+9.4630795E+02	+5.2000000E+03	+2.5740000E+03	+4.2432304E+03
137.0	3	+2.5856665E+03	+1.8322618E+02	+2.7740000E+03	+2.4080000E+03	+4.3606679E+03
148.0	3	+6.6280000E+03	+2.3901464E+02	+6.7670000E+03	+6.3520000E+03	+4.5759726E+03
155.0	3	+5.3323320E+03	+1.9412324E+02	+5.5220000E+03	+5.1340000E+03	+4.7129843E+03
161.0	3	+5.8703320E+03	+2.1217677E+02	+6.0770000E+03	+5.6530000E+03	+4.8304218E+03
168.0	3	+5.1136640E+03	+3.5908374E+02	+5.5740000E+03	+4.8650000E+03	+4.9674335E+03
181.0	3	+5.4060000E+03	+1.2218837E+02	+5.5240000E+03	+5.2800000E+03	+5.2218828E+03
183.0	6	+5.5791640E+03	+5.5924303E+02	+6.5840000E+03	+5.4010000E+03	+5.2610312E+03
209.0	4	+7.4002500E+03	+4.2668351E+03	+1.3746000E+04	+4.8120000E+03	+5.7699296E+03
213.0	6	+6.8873320E+03	+9.5881899E+02	+8.1160000E+03	+5.8940000E+03	+5.8482226E+03
222.0	3	+7.2223320E+03	+1.1336592E+02	+7.3090000E+03	+7.0940000E+03	+6.0243828E+03
228.0	6	+5.7005000E+03	+4.5460903E+02	+6.2510000E+03	+5.1830000E+03	+6.1418203E+03
251.0	6	+4.1418320E+03	+7.7979270E+01	+4.2740000E+03	+4.0400000E+03	+6.5920000E+03

II STAGE CSCT MTRS,OUTER,AXIAL,H,R,HYDRO,CHS=1750 AT 500 PSI, MODULUS

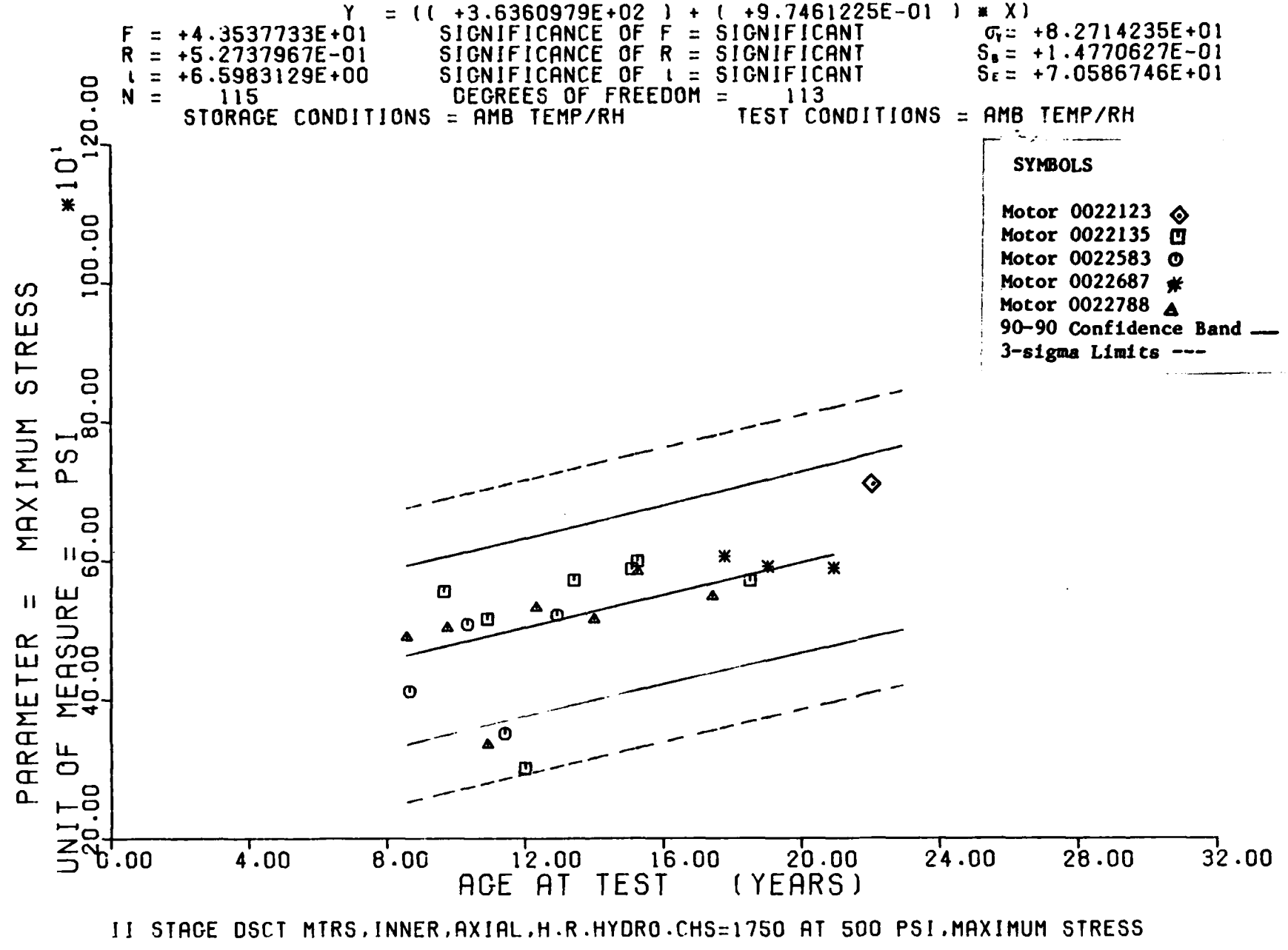

Y = ((+3.6360979E+02) + (+9.7461225E-01) * X)
F = +4.3537733E+01 SIGNIFICANCE OF F = SIGNIFICANT σY = +8.2714235E+01
R = +5.2737967E-01 SIGNIFICANCE OF R = SIGNIFICANT Sb = +1.4770627E-01
t = +6.5983129E+00 SIGNIFICANCE OF t = SIGNIFICANT Sε = +7.0586746E+01
N = 115 DEGREES OF FREEDOM = 113
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MAXIMUM STRESS
UNIT OF MEASURE = PSI *10¹
20.00
40.00
60.00
80.00
100.00
120.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS,INNER,AXIAL,H.R.HYDRO.CHS=1750 AT 500 PSI,MAXIMUM STRESS

Figure 29

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	8	+4.5000000E+02	+2.7516228E+01	+5.2000000E+02	+4.4000000E+02	+4.6399462E+02
104.0	8	+4.1187500E+02	+1.7307615E+01	+4.3500000E+02	+3.8500000E+02	+4.6496923E+02
110.0	8	+5.5562500E+02	+8.6344410E+00	+5.7500000E+02	+5.5000000E+02	+4.7666479E+02
117.0	12	+5.0325000E+02	+1.1985787E+01	+5.1900000E+02	+4.8500000E+02	+4.7763940E+02
124.0	11	+5.0818164E+02	+2.5143341E+01	+5.3700000E+02	+4.6700000E+02	+4.8446165E+02
131.0	15	+4.7973144E+02	+8.8225833E+01	+5.5185990E+02	+3.0765991E+02	+4.9128393E+02
137.0	2	+3.5090478E+02	+6.7308742E+00	+3.5565991E+02	+3.4614990E+02	+4.9713159E+02
144.0	6	+3.0095663E+02	+3.7595597E+01	+3.6158984E+02	+2.4850999E+02	+5.0395385E+02
148.0	3	+5.3238647E+02	+4.3107426E+00	+5.3495996E+02	+5.2742993E+02	+5.0785229E+02
155.0	3	+5.2184326E+02	+2.3827694E+01	+5.4444995E+02	+4.9695996E+02	+5.1467456E+02
161.0	3	+5.7210986E+02	+1.1301109E+01	+5.8347998E+02	+5.6123999E+02	+5.2052221E+02
168.0	3	+5.1537646E+02	+4.6359630E+00	+5.1878979E+02	+5.1011987E+02	+5.2734448E+02
181.0	3	+5.6796972E+02	+8.7135741E+00	+5.9489990E+02	+5.7819995E+02	+5.4001440E+02
183.0	6	+5.9106308E+02	+1.8257058E+01	+6.1712988E+02	+5.7144995E+02	+5.4196362E+02
209.0	3	+5.4833325E+02	+2.4871577E+00	+5.5059985E+02	+5.4569995E+02	+5.6730371E+02
213.0	6	+6.0607153E+02	+4.5273372E+00	+6.1338989E+02	+5.9927978E+02	+5.7120214E+02
222.0	3	+5.7143310E+02	+4.7316172E+00	+5.7590991E+02	+5.6651977E+02	+5.7997363E+02
228.0	6	+5.9121142E+02	+1.0456794E+01	+6.0462988E+02	+5.8229980E+02	+5.8582128E+02
251.0	6	+5.8913305E+02	+3.0756719E+00	+5.9379980E+02	+5.8569995E+02	+6.0823730E+02

II STAGE CSCT MTRS,INNER,AXIAL,H,R,HYDRO,CHS=1750 AT 500 PSI,MAXIMUM STRESS

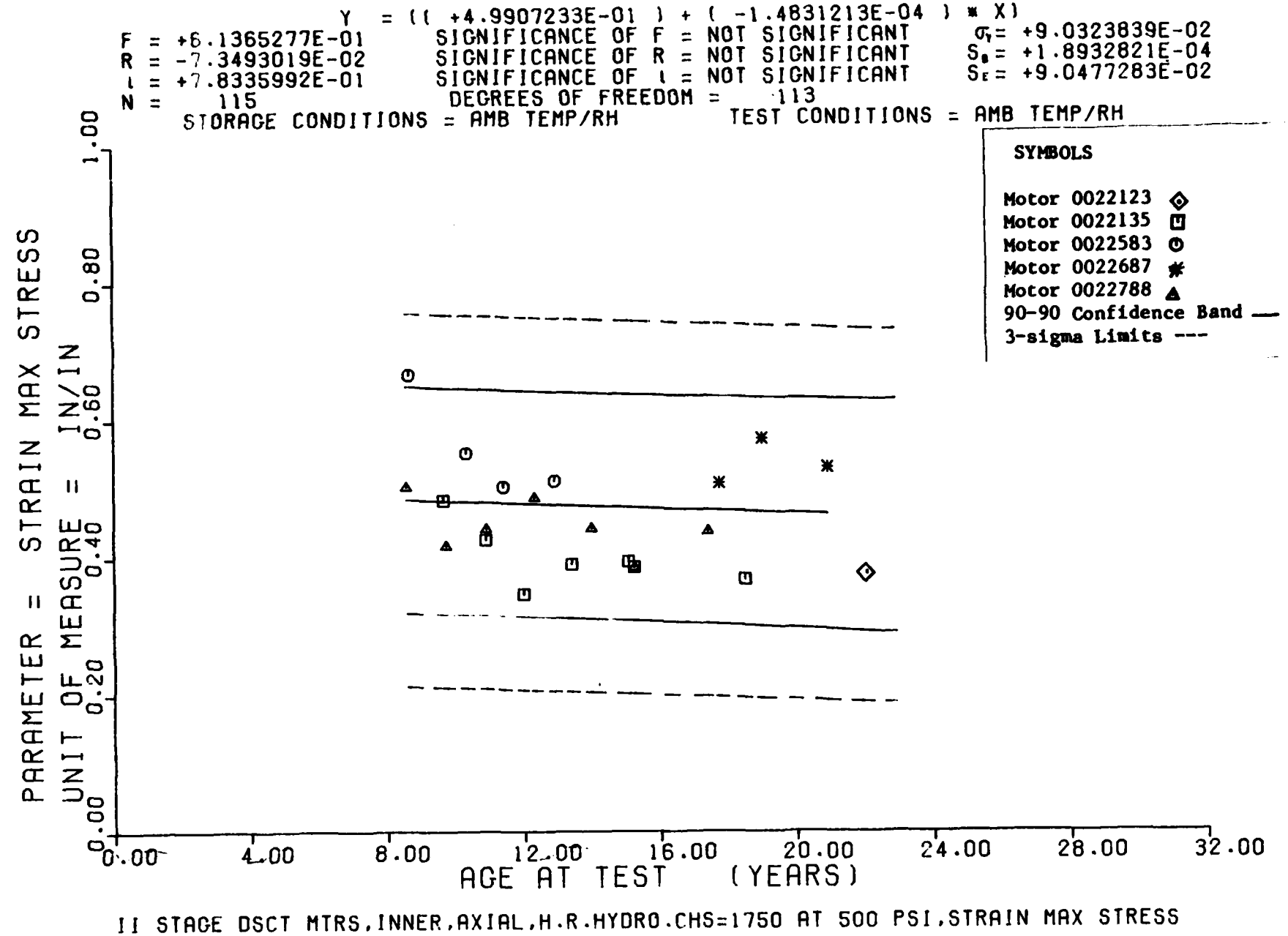

Y = ((+4.9907233E-01) + (-1.4831213E-04) * X)
F = +6.1365277E-01 SIGNIFICANCE OF F = NOT SIGNIFICANT σ = +9.0323839E-02
R = -7.3493019E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT S = +1.8932821E-04
ι = +7.8335992E-01 SIGNIFICANCE OF ι = NOT SIGNIFICANT S = +9.0477283E-02
N = 115 DEGREES OF FREEDOM = 113
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN MAX STRESS
UNIT OF MEASURE = IN/IN
0.00
0.20
0.40
0.60
0.80
1.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS,INNER,AXIAL,H.R.HYDRO.CHS=1750 AT 500 PSI,STRAIN MAX STRESS

Figure 30

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	8	+5.0199961E-01	+3.3664521E-02	+5.4399996E-01	+4.4199997E-01	+4.8379617E-01
104.0	8	+6.6599941E-01	+8.8979914E-02	+7.7199995E-01	+5.3799998E-01	+4.8364782E-01
110.0	8	+4.8312461E-01	+3.2667654E-02	+5.4399996E-01	+4.3399995E-01	+4.8186808E-01
117.0	12	+4.1674959E-01	+5.7931254E-02	+5.3099995E-01	+3.4699994E-01	+4.8171979E-01
124.0	11	+5.5136322E-01	+2.9768828E-02	+5.9599995E-01	+4.8799997E-01	+4.8068159E-01
131.0	15	+4.2815953E-01	+4.2294274E-02	+4.9349999E-01	+3.6729997E-01	+4.7964340E-01
137.0	2	+5.0194978E-01	+1.7334735E-02	+5.1419997E-01	+4.8969995E-01	+4.7875356E-01
144.0	6	+3.4583312E-01	+3.7334709E-02	+3.9789998E-01	+3.0769997E-01	+4.7771537E-01
148.0	3	+4.8629981E-01	+9.4980151E-03	+4.9329996E-01	+4.7549998E-01	+4.7712212E-01
155.0	3	+5.1073294E-01	+9.5308142E-03	+5.1909995E-01	+5.0039994E-01	+4.7608393E-01
161.0	3	+3.8943320E-01	+9.8128323E-03	+4.0009999E-01	+3.8079994E-01	+4.7519403E-01
168.0	3	+4.4136649E-01	+5.3070844E-02	+5.0259995E-01	+4.0869998E-01	+4.7415584E-01
181.0	3	+3.9306640E-01	+4.3905282E-02	+4.3669998E-01	+3.4889996E-01	+4.7222781E-01
185.0	6	+3.8483257E-01	+3.3693357E-02	+4.3899998E-01	+3.3679997E-01	+4.7193115E-01
209.0	3	+4.3666648E-01	+1.1068799E-02	+4.4699996E-01	+4.2499995E-01	+4.6807509E-01
213.0	6	+5.0666287E-01	+3.2199973E-02	+5.3839999E-01	+4.4979995E-01	+4.6748179E-01
222.0	3	+3.6633316E-01	+1.8170644E-02	+3.8729995E-01	+3.5239994E-01	+4.6614700E-01
228.0	6	+5.7204973E-01	+2.5473049E-02	+6.0519999E-01	+5.4379999E-01	+4.6525716E-01
251.0	6	+5.2933311E-01	+1.1821105E-02	+5.4399996E-01	+5.1599997E-01	+4.6184593E-01

II STAGE CSCT MTRS,INNER,AXIAL,H,R,HYDRO,CHS=1750 AT 500 PSI,STRAIN MAX STRESS

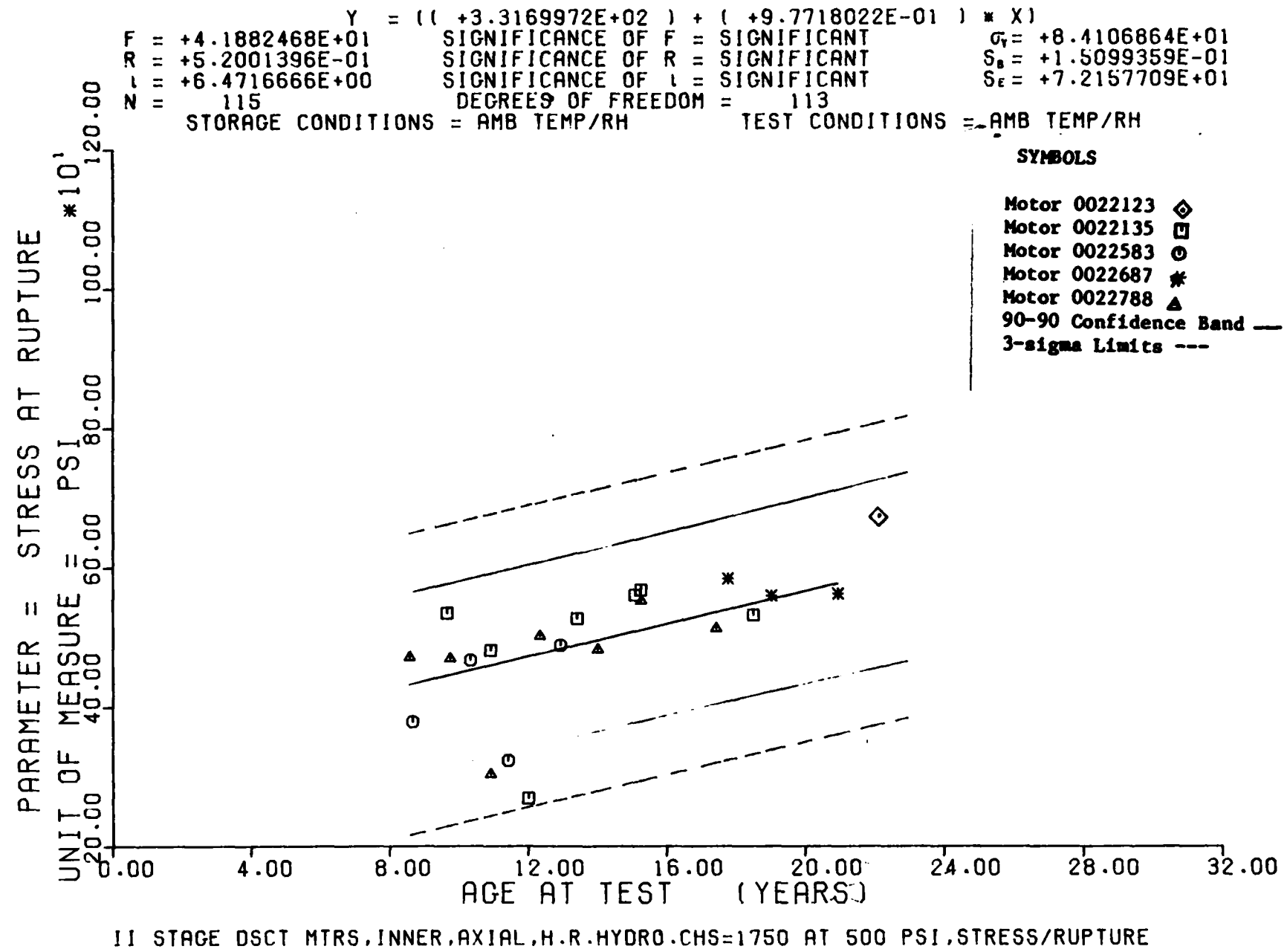

Y = ((+3.3169972E+02) + (+9.7718022E-01) * X)
F = +4.1882468E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +5.2001396E-01 SIGNIFICANCE OF R = SIGNIFICANT
ι = +6.4716666E+00 SIGNIFICANCE OF ι = SIGNIFICANT
N = 115 DEGREES OF FREEDOM = 113
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
σT = +8.4106864E+01
Sβ = +1.5099359E-01
Sε = +7.2157709E+01
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS AT RUPTURE
UNIT OF MEASURE = PSI *10¹
120.00
100.00
80.00
60.00
40.00
20.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS,INNER,AXIAL,H.R.HYDRO.CHS=1750 AT 500 PSI,STRESS/RUPTURE

Figure 31

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	8	+4.7125000E+02	+2.1671244E+01	+4.9500000E+02	+4.2500000E+02	+4.3234912E+02
104.0	8	+3.7875000E+02	+2.8125992E+01	+4.1000000E+02	+3.3000000E+02	+4.3332641E+02
110.0	8	+5.3437500E+02	+1.3632307E+01	+5.5000000E+02	+5.2000000E+02	+4.4505249E+02
117.0	12	+4.6958400E+02	+1.6138604E+01	+4.8900000E+02	+4.4100000E+02	+4.4602978E+02
124.0	11	+4.6709082E+02	+2.7858408E+01	+5.0100000E+02	+4.2400000E+02	+4.5286987E+02
131.0	15	+4.4832495E+02	+8.6938675E+01	+5.1597998E+02	+2.7192993E+02	+4.5971020E+02
137.0	2	+3.2312475E+02	+8.3853458E+00	+3.2904980E+02	+3.1719995E+02	+4.6557324E+02
144.0	6	+2.6868969E+02	+4.2075360E+01	+3.2542993E+02	+2.0466999E+02	+4.7241357E+02
148.0	3	+5.0164306E+02	+6.6610260E+00	+5.0923999E+02	+4.9686987E+02	+4.7632226E+02
155.0	3	+4.8807983E+02	+3.2231890E+01	+5.1737988E+02	+4.5355981E+02	+4.8316259E+02
161.0	3	+5.2636645E+02	+1.0572556E+01	+5.3853979E+02	+5.1959985E+02	+4.8902563E+02
168.0	3	+4.8255322E+02	+2.1621068E+00	+4.8489990E+02	+4.8072998E+02	+4.9586596E+02
181.0	3	+5.5996315E+02	+4.5833820E+00	+5.6431982E+02	+5.5520996E+02	+5.0856933E+02
182.0	6	+5.5996972E+02	+2.0795855E+01	+5.9359985E+02	+5.3541992E+02	+5.1052368E+02
209.0	3	+5.1243310E+02	+4.0888162E+00	+5.1619995E+02	+5.0809985E+02	+5.3593017E+02
213.0	6	+5.8384814E+02	+7.1911961E+00	+5.9339990E+02	+5.7537988E+02	+5.3983911E+02
222.0	3	+5.3146655E+02	+1.8503342E+00	+5.3339990E+02	+5.2979980E+02	+5.4863354E+02
228.0	6	+5.5921313E+02	+1.8625108E+01	+5.8790991E+02	+5.3739990E+02	+5.5449658E+02
251.0	6	+5.6225146E+02	+7.5725673E+00	+5.7233984E+02	+5.4972998E+02	+5.7697192E+02

II STAGE CSCT MTRS,INNER,AXIAL,H,R,HYDRO,CHS=1750 AT 500 PSI,STRESS/RUPTURE

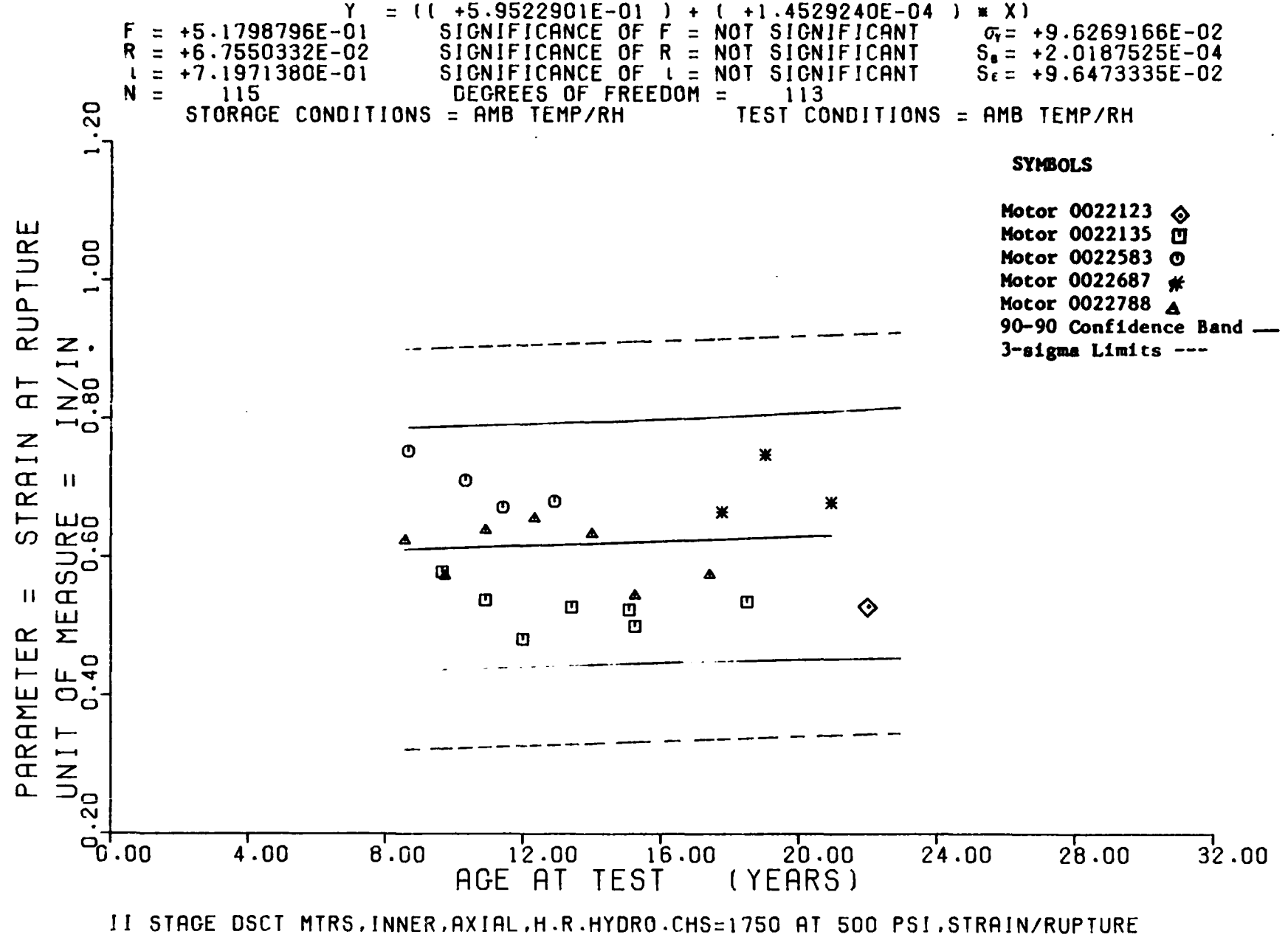

Y = ((+5.9522901E-01) + (+1.4529240E-04) * X)
F = +5.1798796E-01 SIGNIFICANCE OF F = NOT SIGNIFICANT σY = +9.6269166E-02
R = +6.7550332E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT Sa = +2.0187525E-04
ι = +7.1971380E-01 SIGNIFICANCE OF ι = NOT SIGNIFICANT Sε = +9.6473335E-02
N = 115 DEGREES OF FREEDOM = 113
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRAIN AT RUPTURE
UNIT OF MEASURE = IN/IN
1.20
1.00
0.80
0.60
0.40
0.20
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS,INNER,AXIAL,H.R.HYDRO.CHS=1750 AT 500 PSI,STRAIN/RUPTURE

Figure 32

**** LINEAR REGRESSION ANALYSIS ****

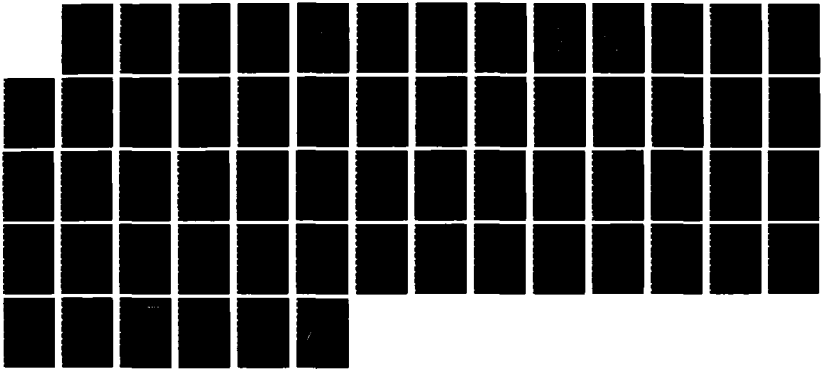
*** ANALYSIS OF TIME SERIES ***

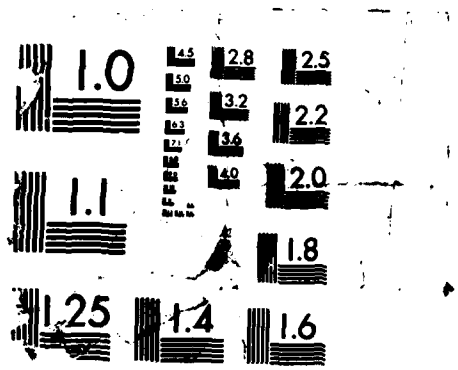
AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	8	+6.2345939E-01	+3.9647733E-02	+6.6299998E-01	+5.6099998E-01	+6.1019408E-01
104.0	8	+7.8262463E-01	+9.0044988E-02	+8.5599994E-01	+5.5699998E-01	+6.1033940E-01
110.0	8	+5.7799947E-01	+3.0444861E-02	+6.1199998E-01	+5.3599995E-01	+6.1208289E-01
117.0	12	+5.7224953E-01	+9.4857949E-02	+6.7899996E-01	+4.3099999E-01	+6.1222821E-01
124.0	11	+7.0999950E-01	+4.9735818E-02	+7.8499996E-01	+6.3099998E-01	+6.1324524E-01
131.0	15	+5.5743956E-01	+5.2915138E-02	+6.5939999E-01	+4.7669994E-01	+6.1426228E-01
137.0	2	+6.7129993E-01	+3.0549693E-02	+6.9289994E-01	+6.4969998E-01	+6.1513406E-01
144.0	6	+4.8129951E-01	+6.9116671E-02	+5.9239995E-01	+3.9669996E-01	+6.1615109E-01
148.0	3	+6.5533316E-01	+1.1791885E-02	+6.6869997E-01	+6.4639997E-01	+6.1673223E-01
155.0	3	+6.7966643E-01	+2.7322563E-02	+7.0659995E-01	+6.5199995E-01	+6.1774933E-01
161.0	3	+5.2773284E-01	+7.2249474E-03	+5.3599995E-01	+5.2319997E-01	+6.1862105E-01
168.0	3	+6.3403284E-01	+1.5169454E-02	+6.5119999E-01	+6.2249994E-01	+6.1963808E-01
181.0	3	+5.2409964E-01	+3.0403975E-02	+5.5809998E-01	+4.9919998E-01	+6.2152689E-01
183.0	6	+5.2246643E-01	+2.7264909E-02	+5.4839998E-01	+4.7999995E-01	+6.2181746E-01
209.0	3	+5.7466632E-01	+1.0255154E-01	+6.4499998E-01	+4.5699995E-01	+6.2559509E-01
213.0	6	+6.6531622E-01	+5.1772293E-02	+7.1319997E-01	+5.9569997E-01	+6.2617623E-01
222.0	3	+5.3566616E-01	+7.8190089E-03	+5.4199999E-01	+5.2699995E-01	+6.2748390E-01
238.0	6	+7.4798297E-01	+5.4051484E-02	+8.1099998E-01	+6.7419999E-01	+6.2835562E-01
251.0	6	+6.7899954E-01	+2.5564391E-02	+7.0899999E-01	+6.4599996E-01	+6.3169735E-01

II STAGE DSCT MTRS,INNER,AXIAL,h,R,HYDRO,CHS=1750 AT 500 PSI,STRAIN/RUPTURE

AD-A172 891 LGM-30B STAGE II DISSECTED MOTOR TEST REPORT(U) OGDEN AIR LOGISTICS CENTER HILL AFB UT PROPELLANT ANALYSIS LAB E M DALABA JUN 86 MAOCP-NR-518(86) 2/2

UNCLASSIFIED F/G 21/9.2 NL





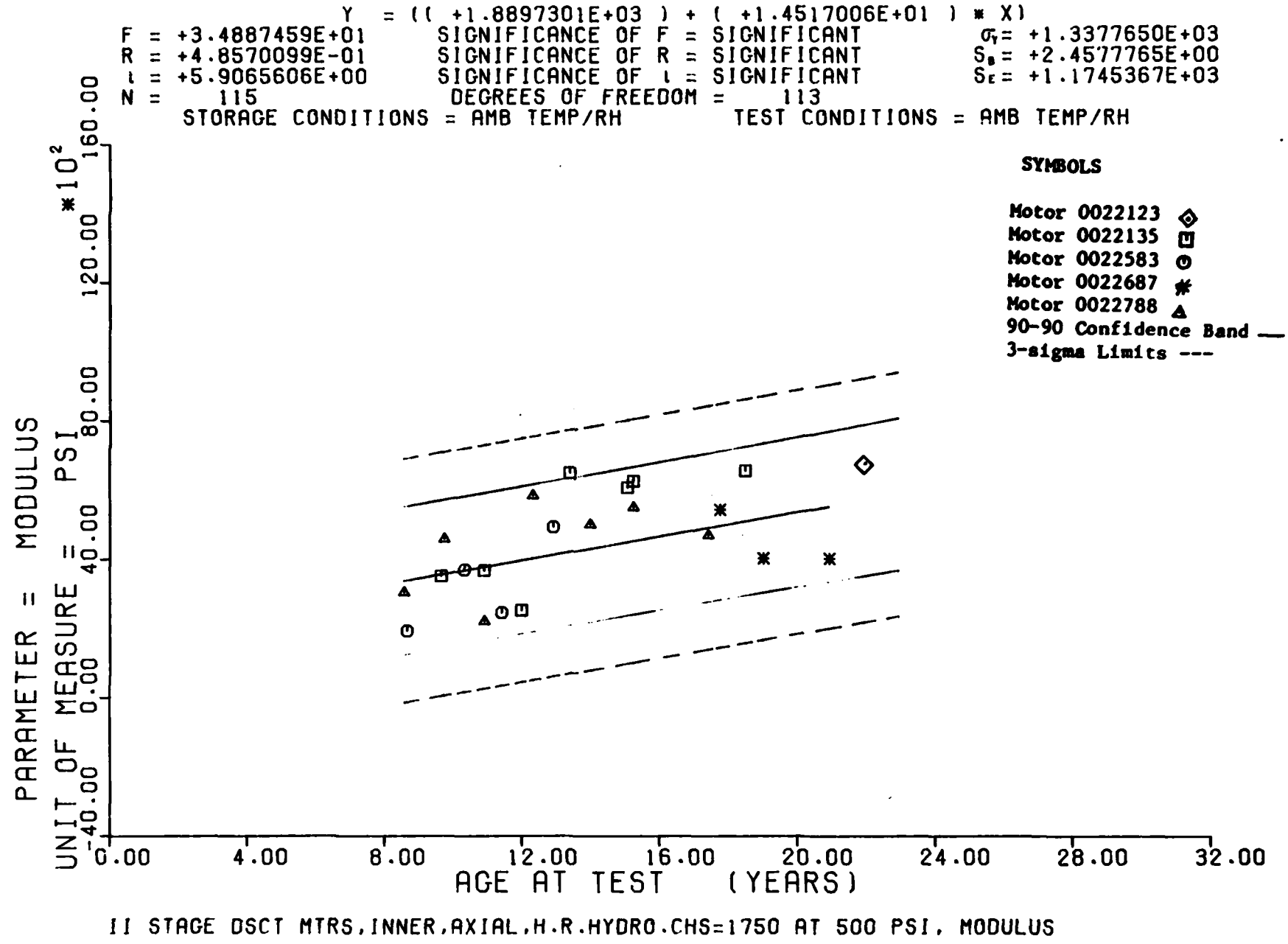

Y = ((+1.8897301E+03) + (+1.4517006E+01) * X)
F = +3.4887459E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +4.8570099E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +5.9065606E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 115 DEGREES OF FREEDOM = 113
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
σY = +1.3377650E+03
SB = +2.4577765E+00
SE = +1.1745367E+03
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = MODULUS
UNIT OF MEASURE = PSI *10²
-40.00
0.00
40.00
80.00
120.00
160.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS,INNER,AXIAL,H.R.HYDRO.CHS=1750 AT 500 PSI, MODULUS

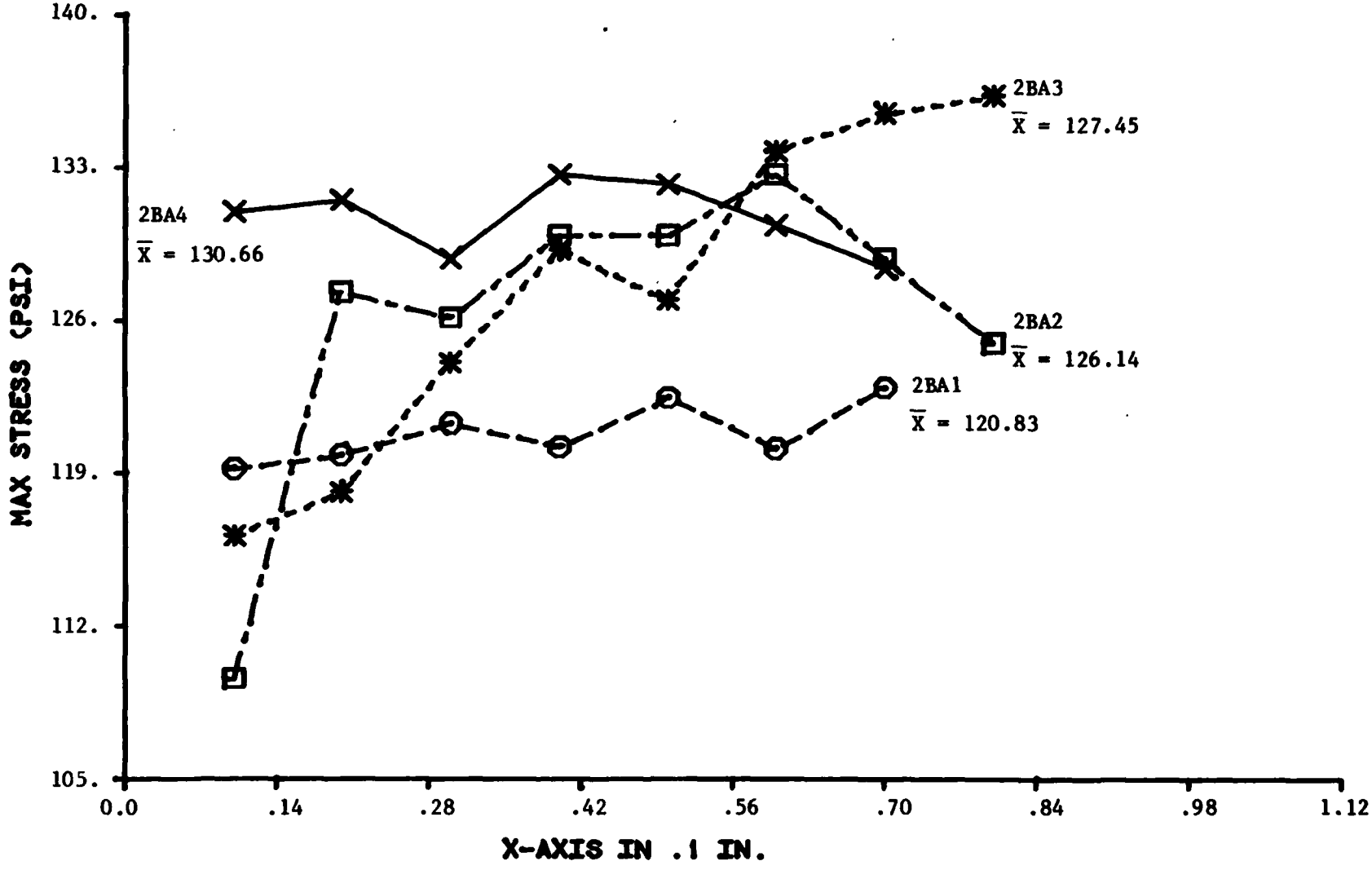
Figure 33

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

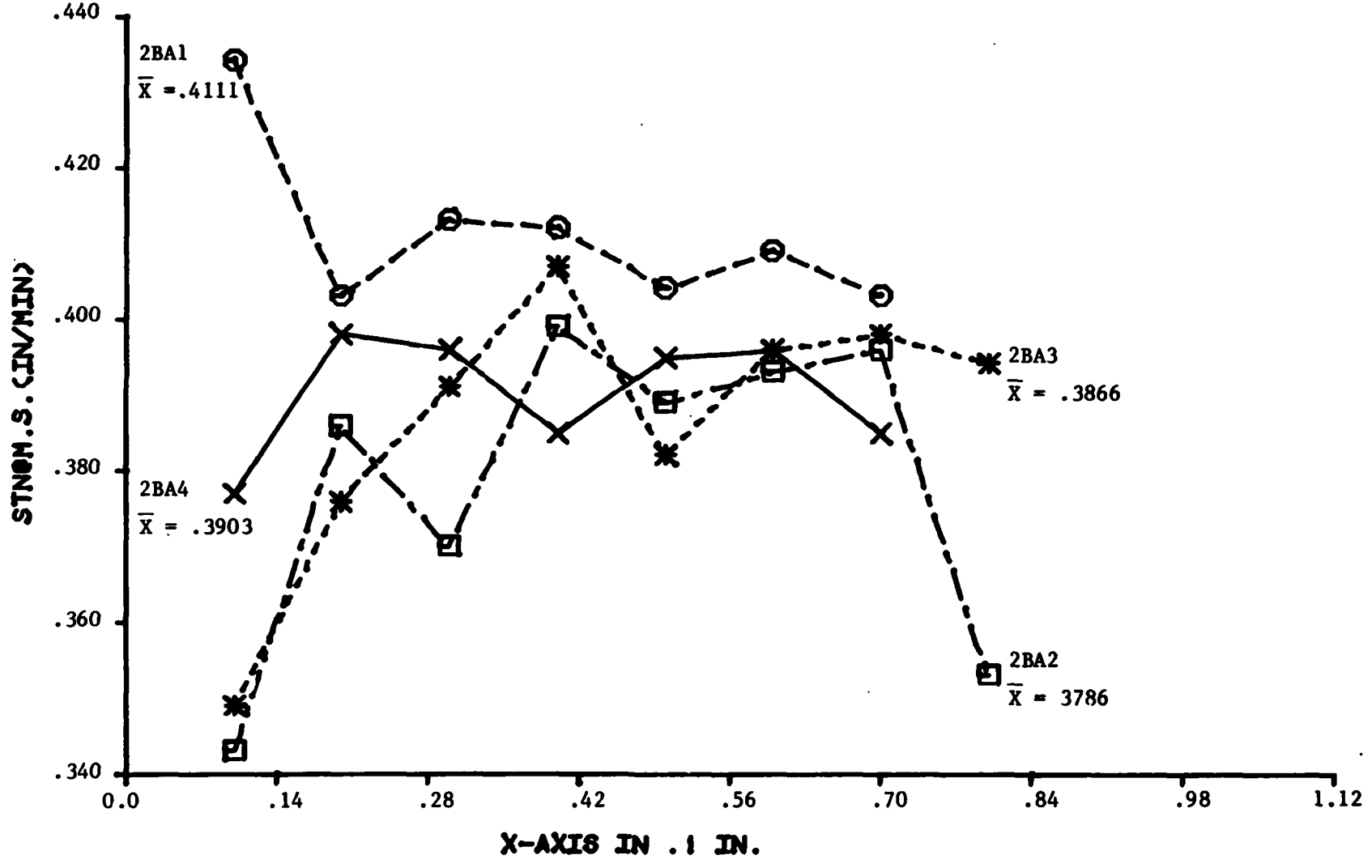
AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
103.0	8	+3.0500000E+03	+2.9760952E+02	+3.4000000E+03	+2.4000000E+03	+3.3849816E+03
104.0	8	+1.9362500E+03	+3.2252917E+02	+2.5800000E+03	+1.6000000E+03	+3.3994985E+03
116.0	8	+3.5250000E+03	+2.4348657E+02	+3.9000000E+03	+3.1000000E+03	+3.5737026E+03
117.0	12	+4.5975000E+03	+6.4672749E+02	+6.1000000E+03	+3.5700000E+03	+3.5882197E+03
124.0	11	+3.7060000E+03	+6.7838189E+02	+4.5060000E+03	+2.7060000E+03	+3.6898388E+03
131.0	15	+3.3917331E+03	+7.5149826E+02	+4.9000000E+03	+1.9920000E+03	+3.7914577E+03
137.0	2	+2.4660000E+03	+1.5273506E+02	+2.5740000E+03	+2.3580000E+03	+3.8785598E+03
144.0	6	+2.5298332E+03	+4.7415352E+02	+2.9800000E+03	+1.9920000E+03	+3.9801789E+03
148.0	3	+5.8460000E+03	+2.1410744E+02	+6.0360000E+03	+5.6140000E+03	+4.0382468E+03
156.0	3	+4.9406640E+03	+9.1210379E+01	+5.0420000E+03	+4.9650000E+03	+4.1398632E+03
161.0	3	+6.5000000E+03	+1.4477568E+02	+6.6600000E+03	+6.3780000E+03	+4.2269648E+03
168.0	3	+5.0220000E+03	+8.2169215E+02	+5.9540000E+03	+4.4020000E+03	+4.3285859E+03
181.0	3	+6.0840000E+03	+8.1418425E+02	+6.8210000E+03	+5.2100000E+03	+4.5173046E+03
183.0	6	+5.8906640E+03	+7.0582792E+02	+6.6100000E+03	+4.7840000E+03	+4.5463398E+03
209.0	3	+4.7063320E+03	+1.6757038E+02	+4.8590000E+03	+4.5279000E+03	+4.9237812E+03
213.0	6	+5.4455000E+03	+5.9692989E+02	+6.1400000E+03	+4.6490000E+03	+4.9818515E+03
222.0	3	+6.5620000E+03	+4.1802631E+02	+6.9110000E+03	+6.1080000E+03	+5.1125039E+03
228.0	6	+4.0378332E+03	+7.3963934E+02	+5.2340000E+03	+3.2330000E+03	+5.1996054E+03
231.0	6	+4.0353332E+03	+1.8431133E+02	+4.3930000E+03	+3.8830000E+03	+5.5334960E+03

II STAGE DSCT MTRS,INNER,AXIAL,E,P,HYDRO,CHS=1750 AT 500 PSI, MODULUS



OUTER TEST COMPARISON OF MINITHIN MAX STRESS VALUES FOR 4 BLOCKS

Figure 34



OUTER TEST COMPARISON OF MINITHIN STRN @ MAX STRS. VALUES FOR 4 BLOCKS

Figure 35

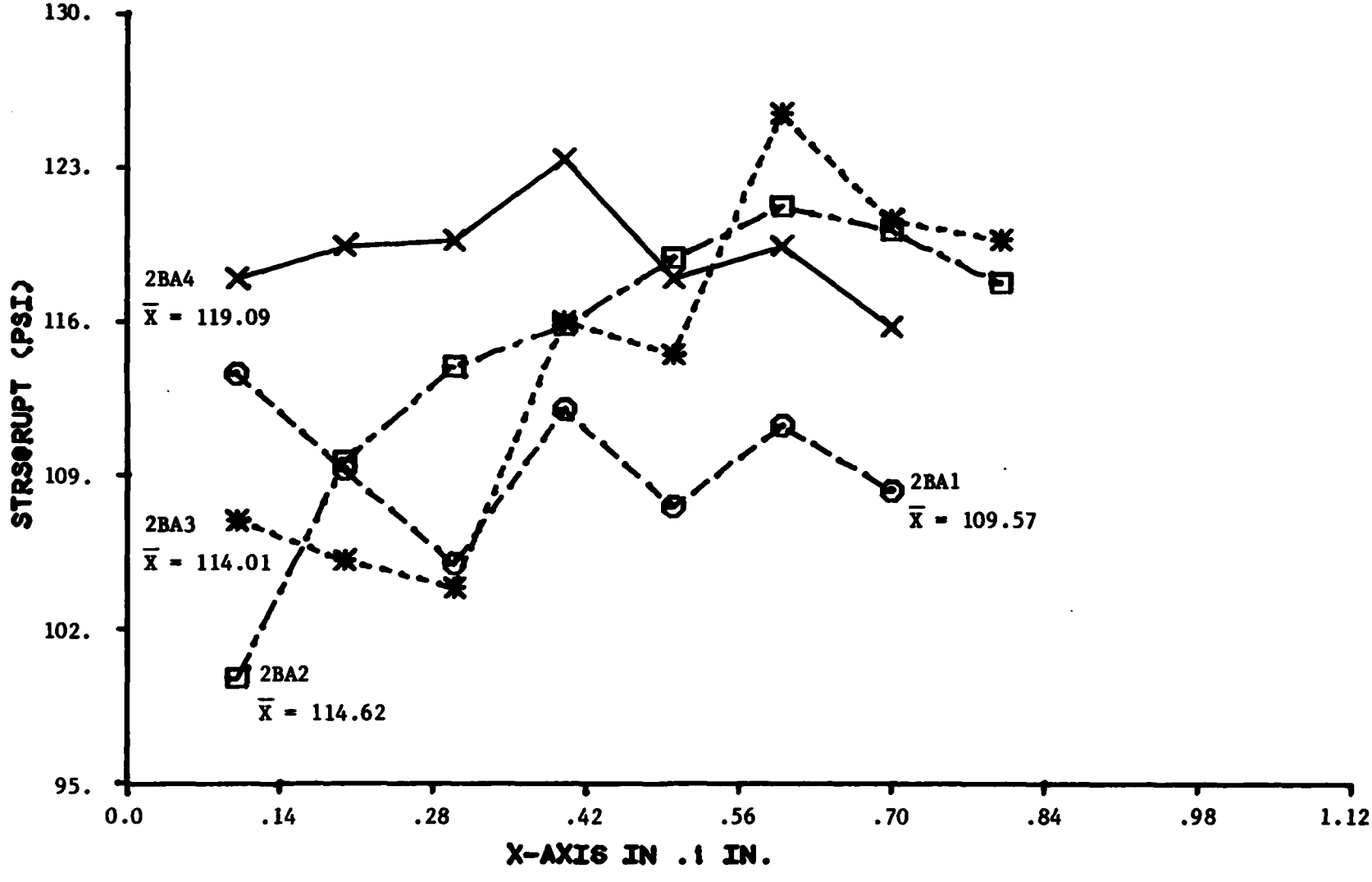
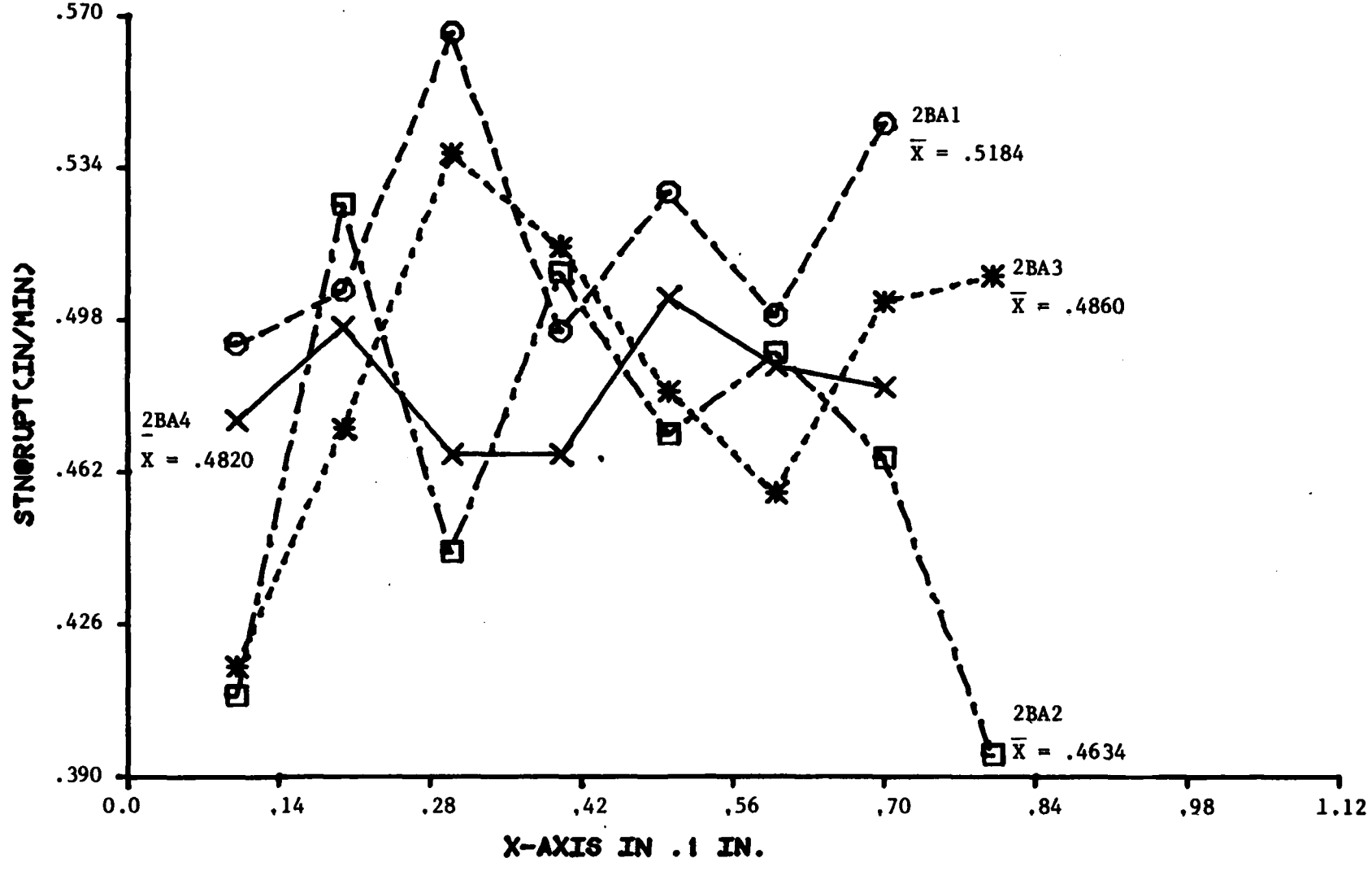
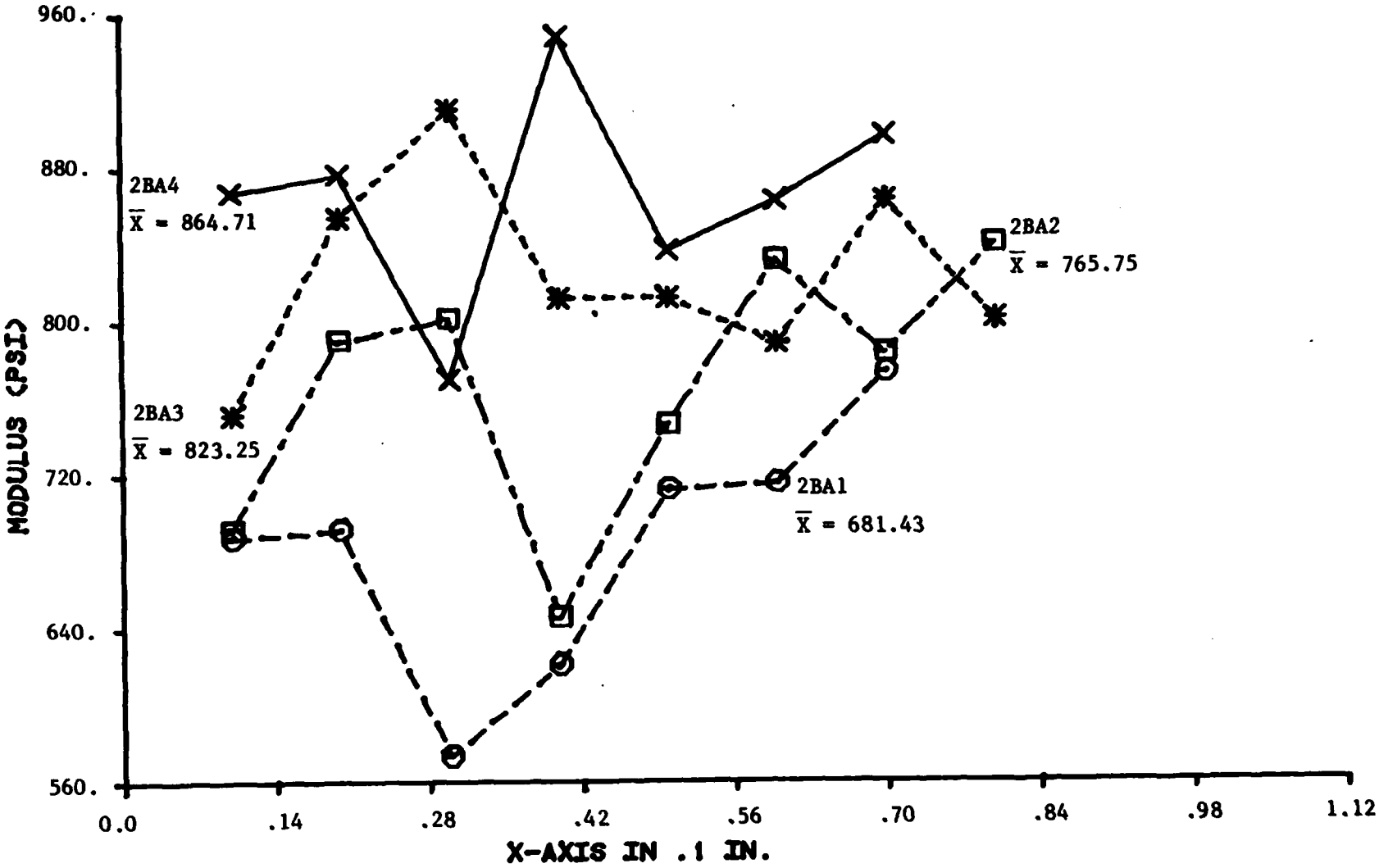

130.
123.
116.
109.
102.
95.
STRSORUPT (PSI)
2BA4
X = 119.09
2BA3
X = 114.01
2BA2
X = 114.62
2BA1
X = 109.57
0.0
.14
.28
.42
.56
.70
.84
.98
1.12
X-AXIS IN .1 IN.
OUTER TEST COMPARISON OF MINITHIN STRESS @ RUPTURE VALUES FOR 4 BLOCKS

Figure 36



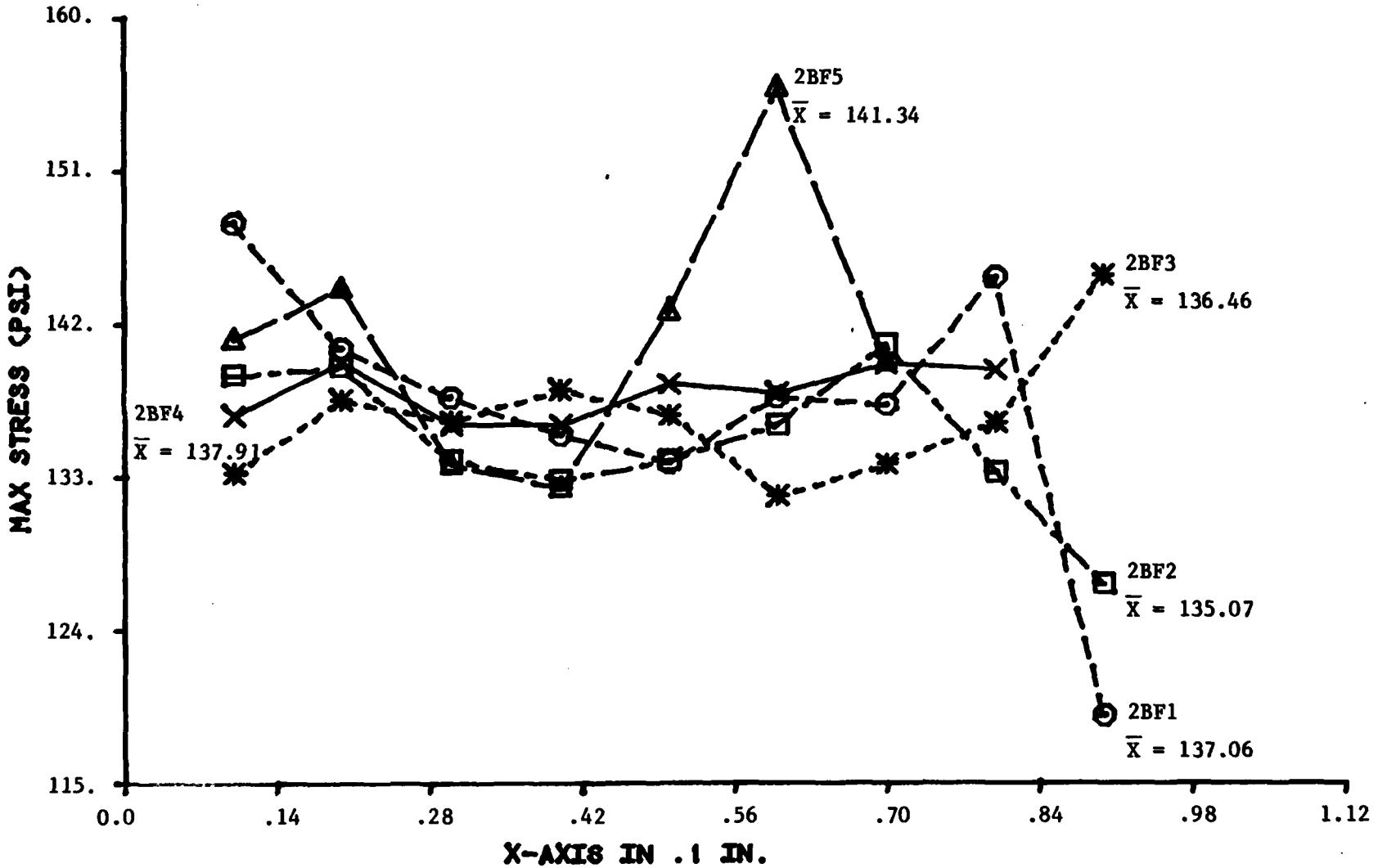
OUTER TEST COMPARISON OF MINITHIN STRAIN @ RUPTURE VALUES FOR 4 BLOCKS

Figure 37



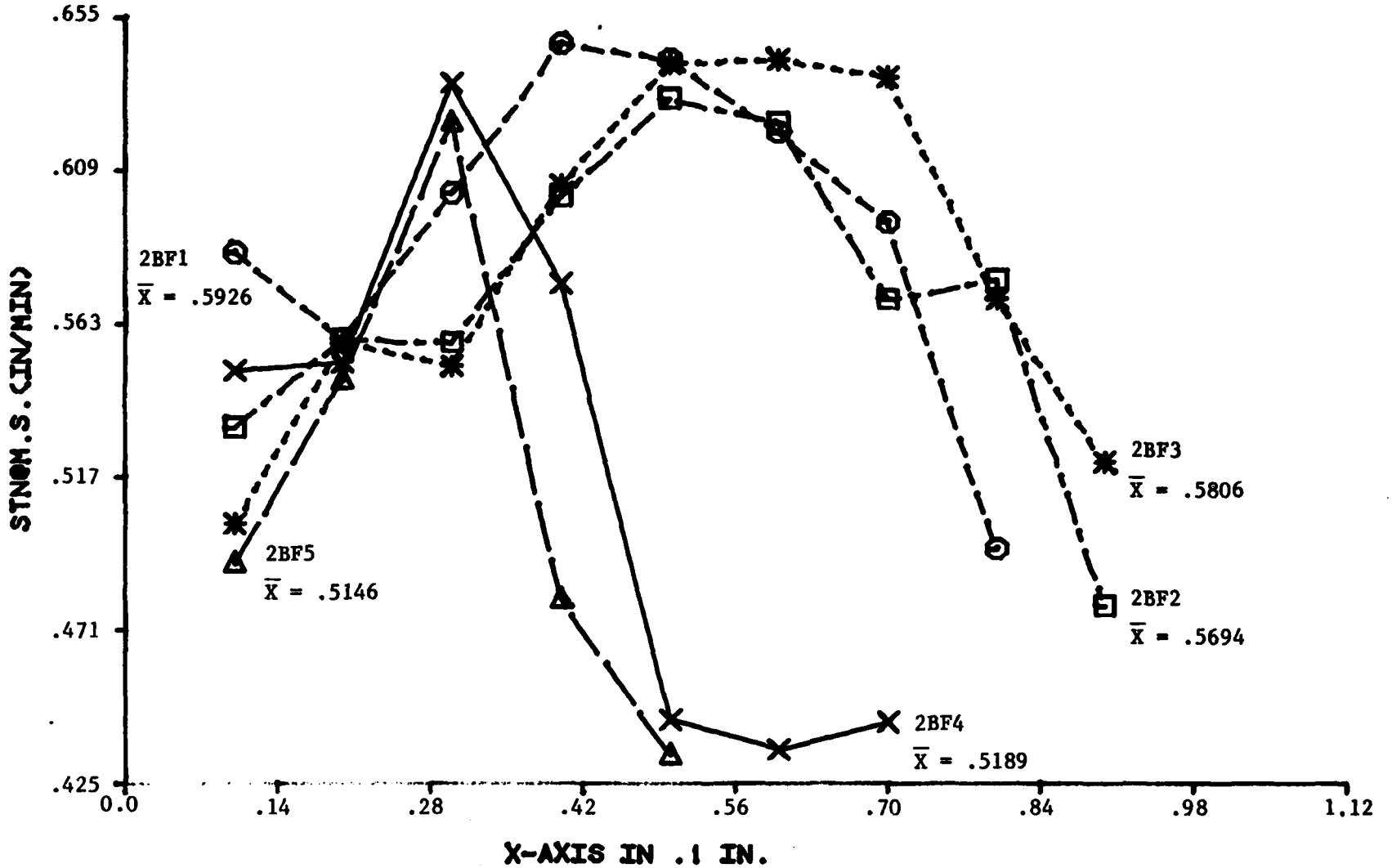
OUTER TEST COMPARISON OF MINITHIN MODULUS VALUES FOR 4 BLOCKS

Figure 38



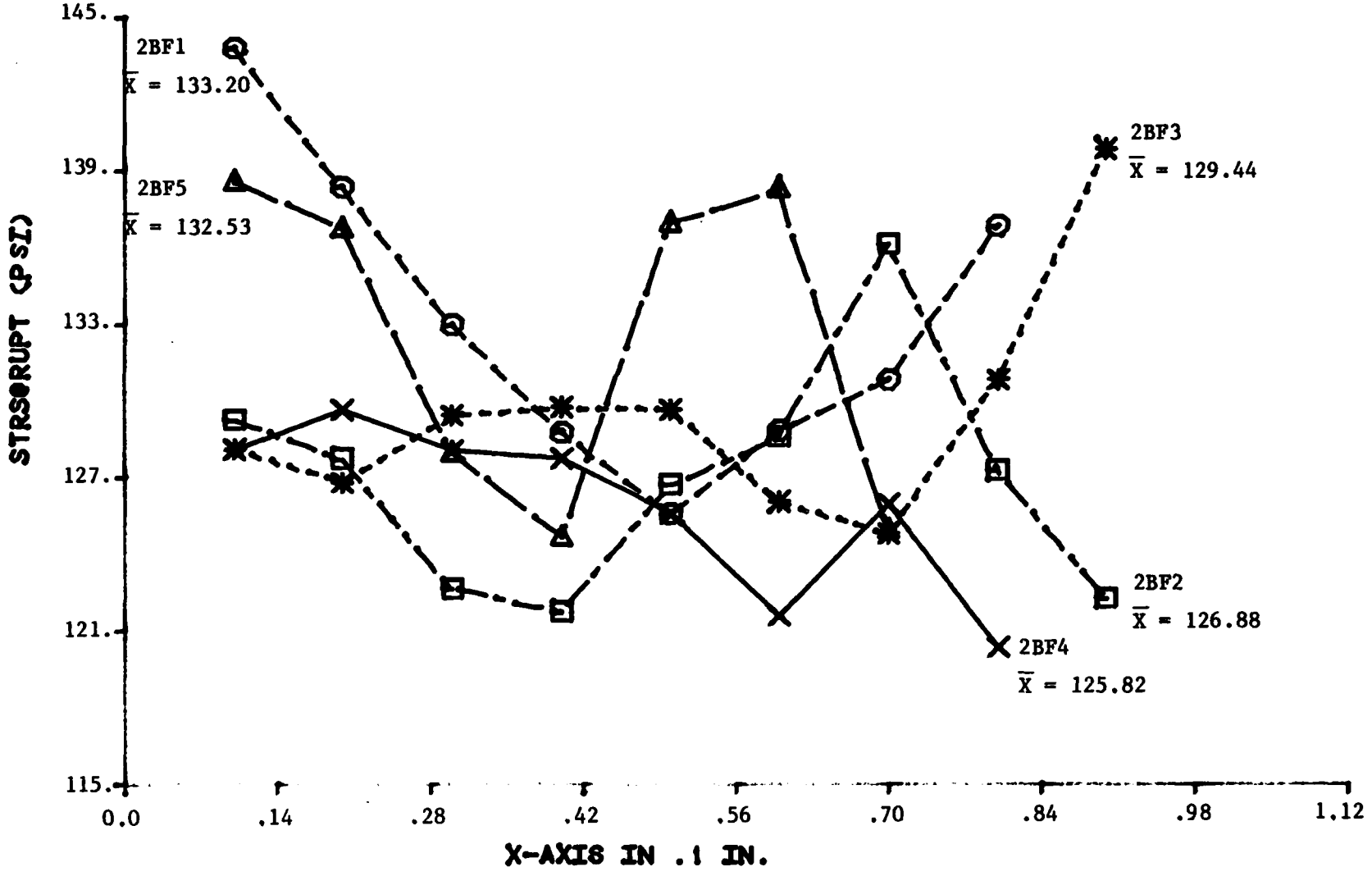
INNER TEST COMPARISON OF MINITHIN MAX STRESS VALUES FOR 5 BLOCKS

Figure 39



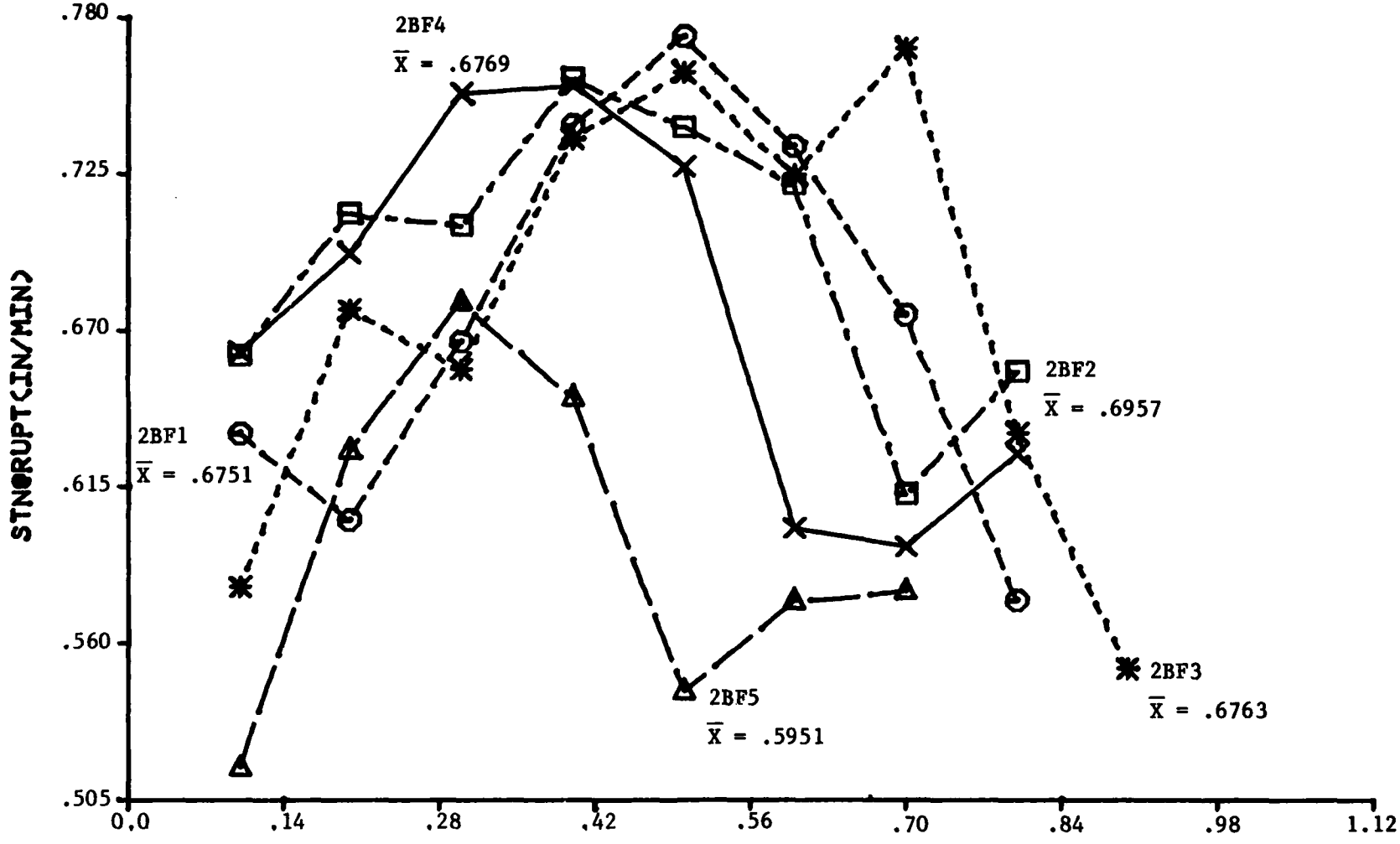
INNER TEST COMPARISON OF MINITHIN STRN. @ MAX STRS. VALUES FOR 5 BLOCKS

Figure 40



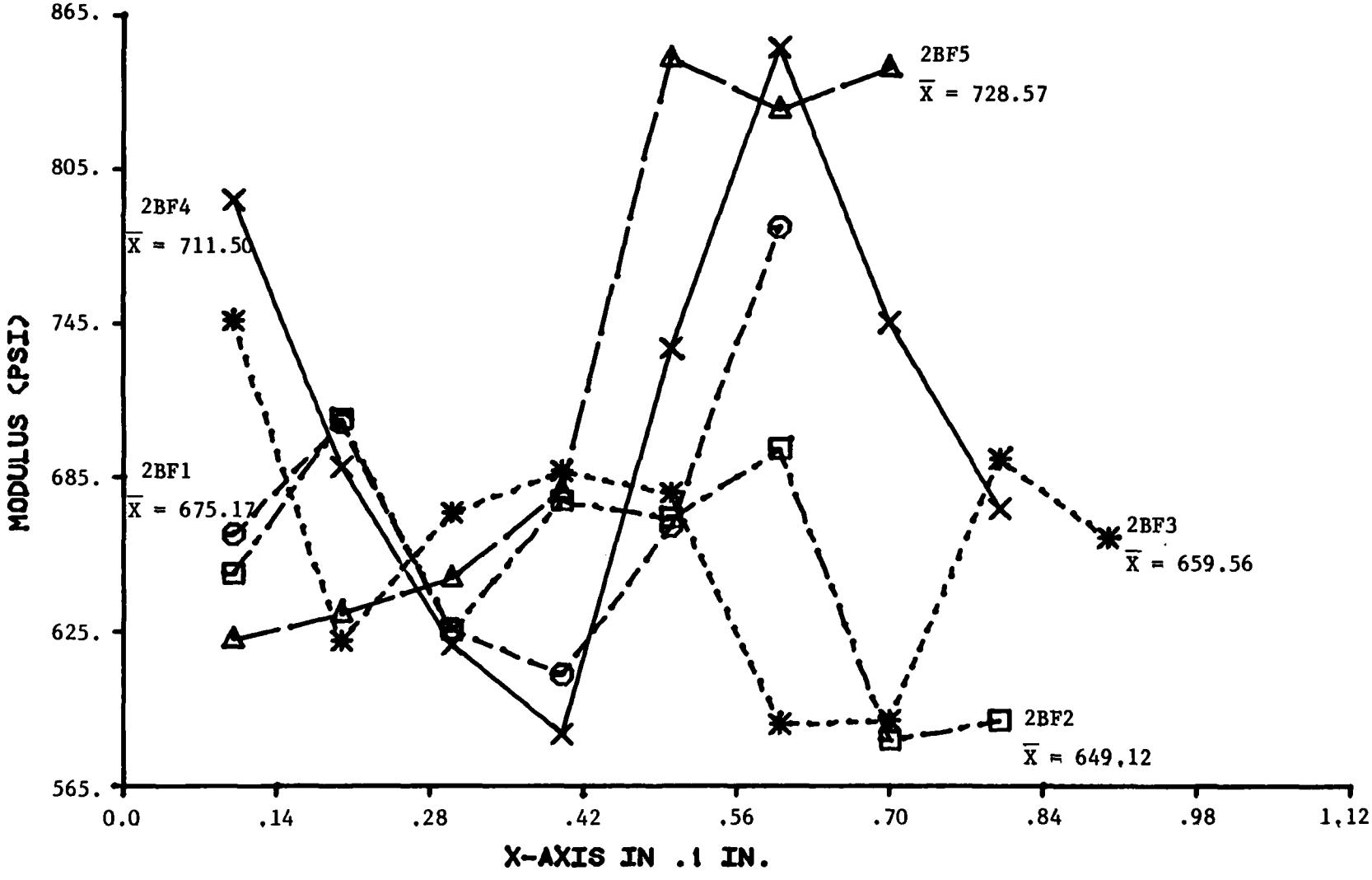
INNER TEST COMPARISON OF MINITHIN STRESS AT RUPTURE VALUES FOR 5 BLOCKS

Figure 41



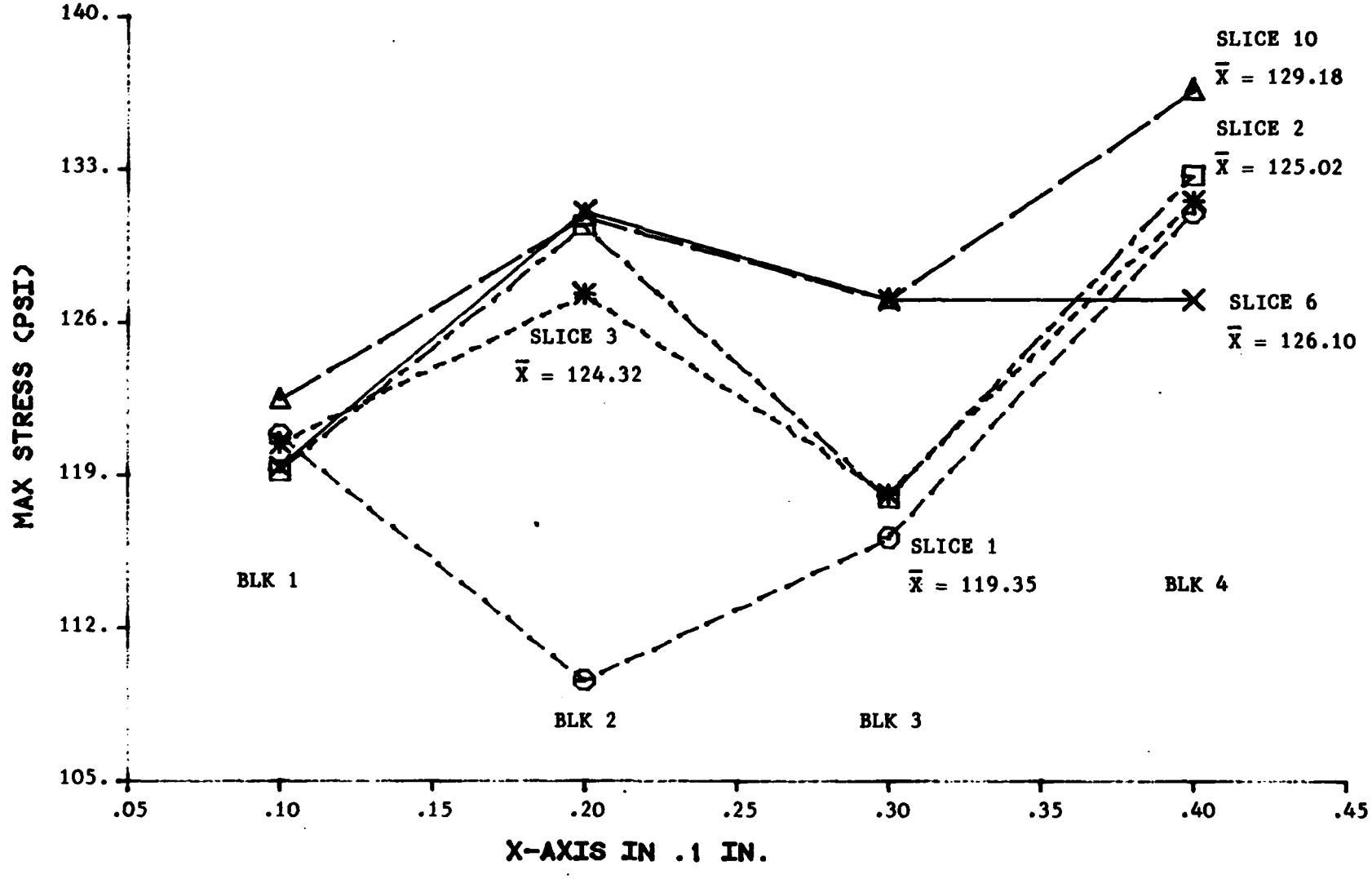
INNER TEST COMPARISON OF MINITHIN STRAIN @ RUPTURE VALUES FOR 5 BLOCKS

Figure 42



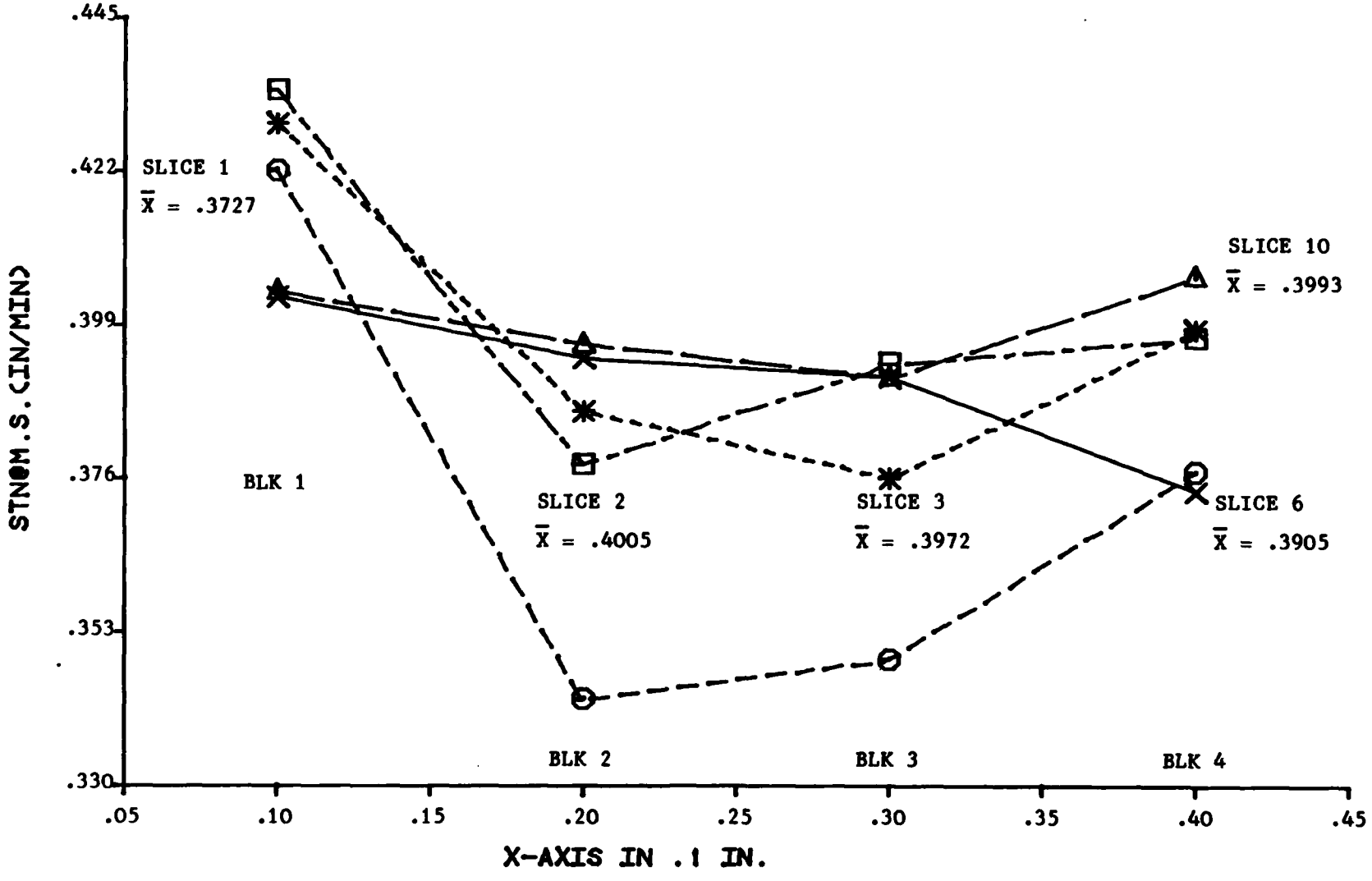
INNER TEST COMPARISON OF MINITHIN MODULUS VALUES FOR 5 BLOCKS

Figure 43



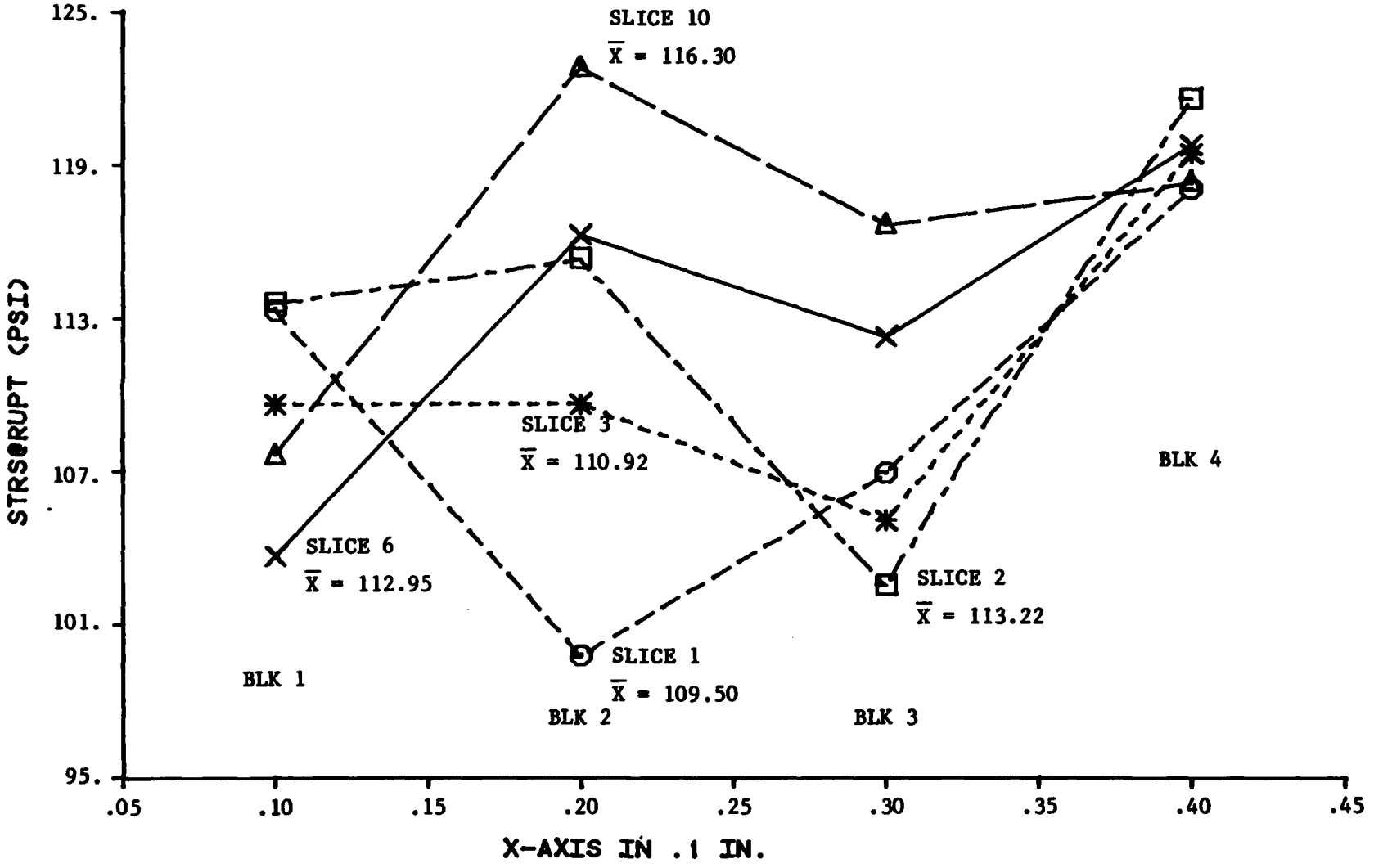
OUTER TEST COMPARISON OF MINITHIN MAX STRESS VALUES FOR 5 SLICES

Figure 44



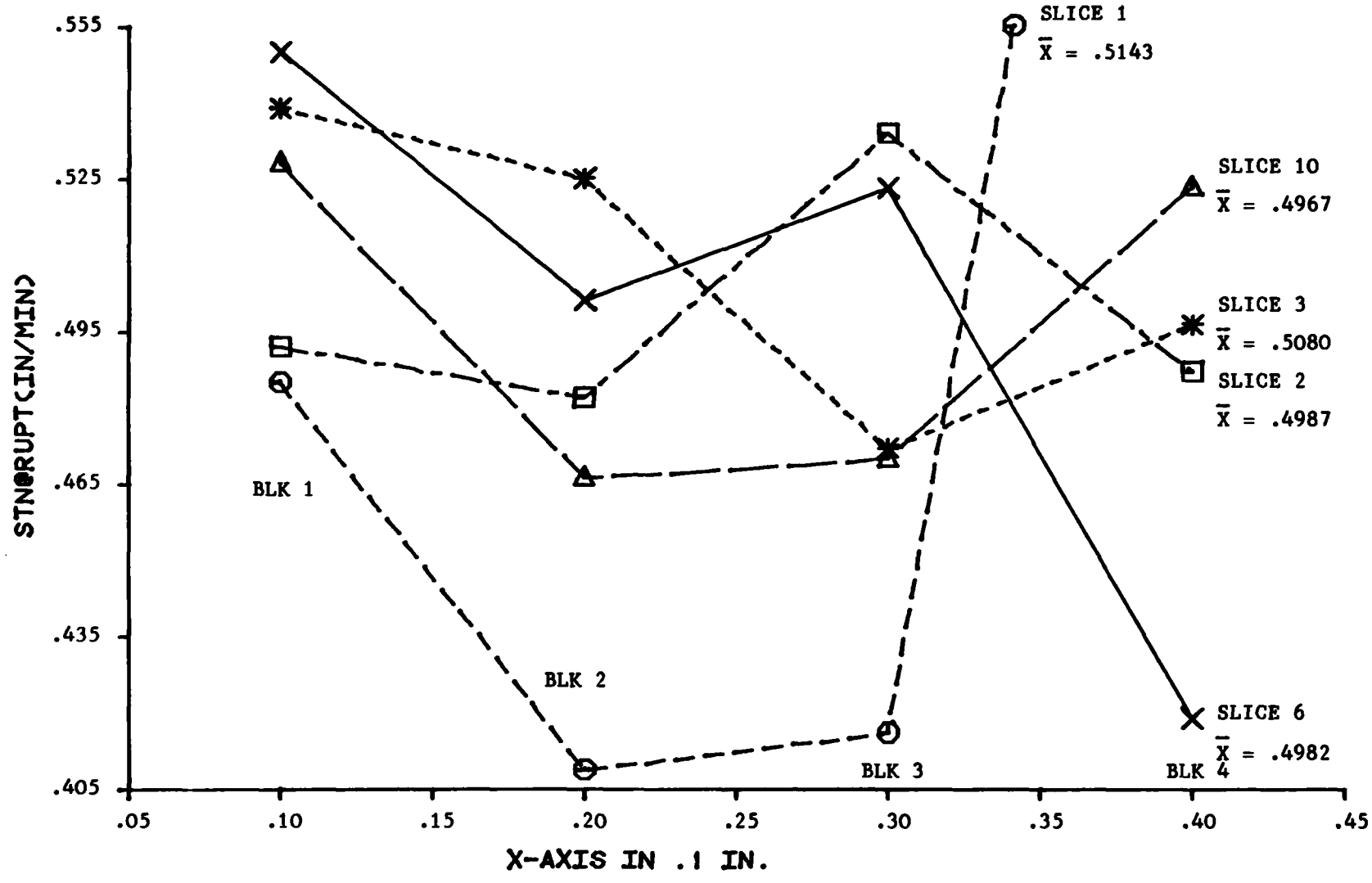
OUTER TEST COMPARISON OF MINITHIN STRN. ● MAX STRS. VALUES FOR 5 SLICES

Figure 45



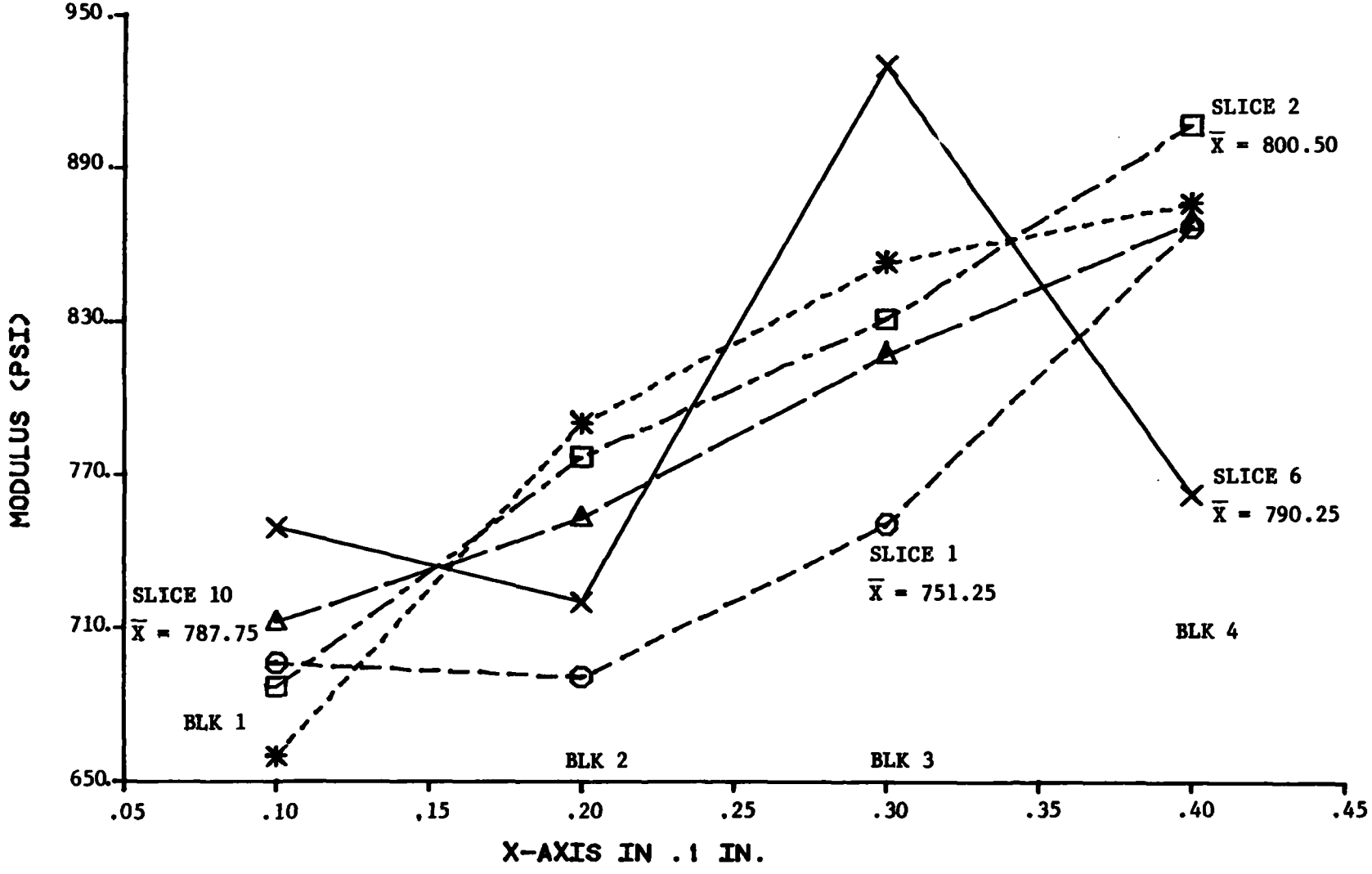
OUTER TEST COMPARISON OF MINITHIN STRESS AT RUPTURE VALUES FOR 5 SLICES

Figure 46



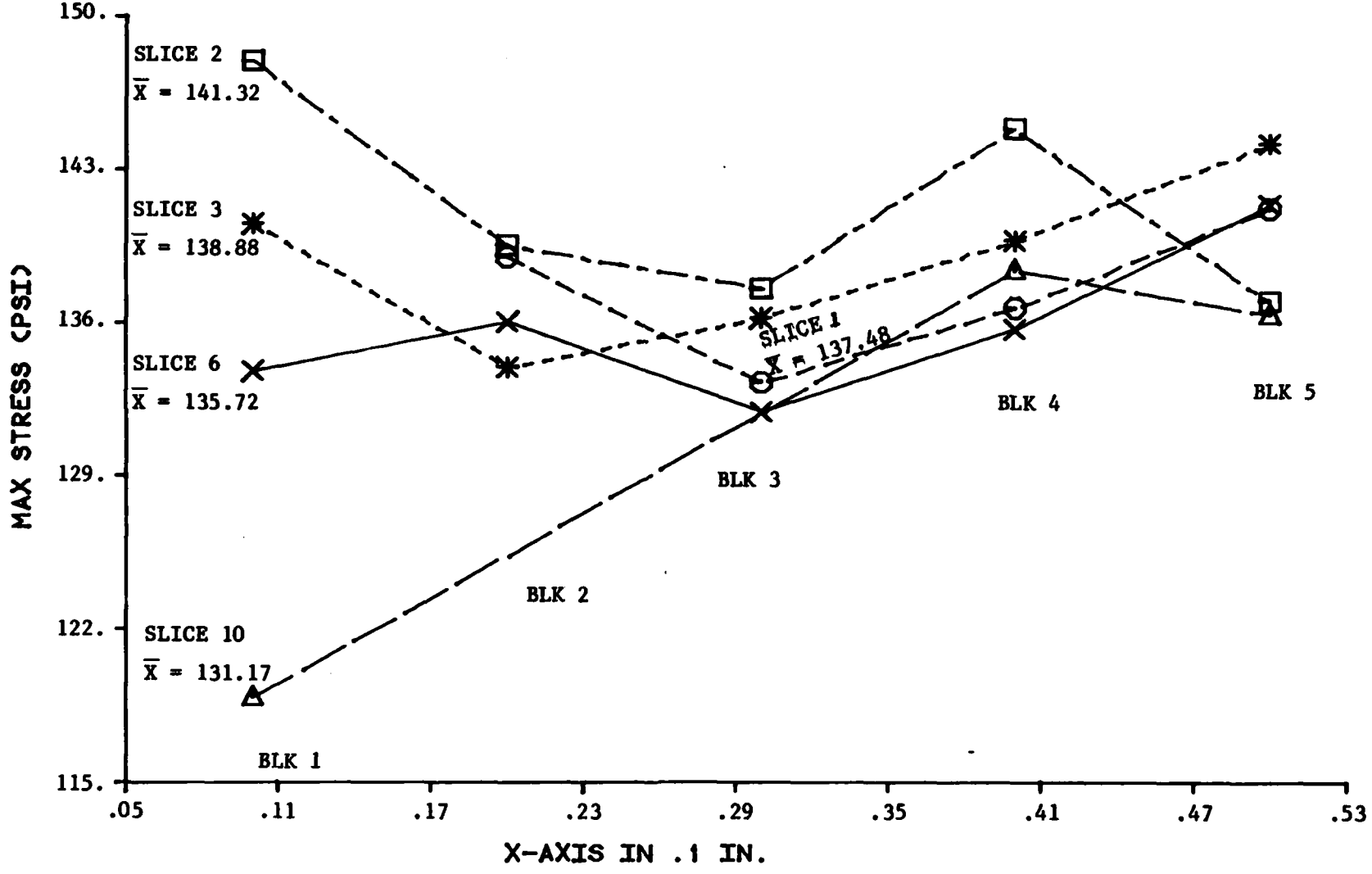
OUTER TEST COMPARISON OF MINITHIN STRAIN @ RUPTURE VALUES FOR 5 SLICES

Figure 47



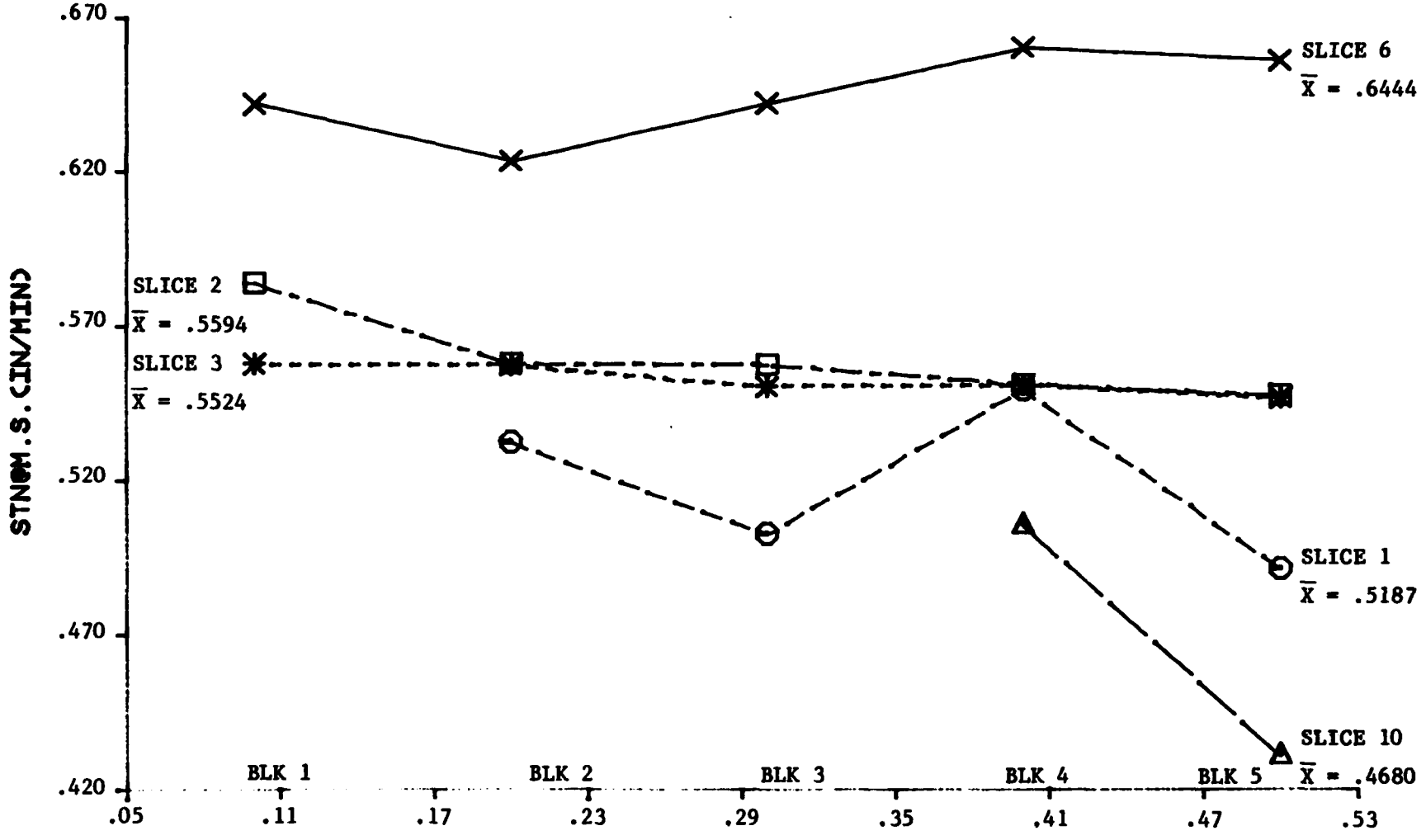
OUTER TEST COMPARISON OF MINITHIN MODULUS VALUES FOR 5 SLICES

Figure 48



INNER TEST COMPARISON OF MINITHIN MAX STRESS VALUES FOR 5 SLICES

Figure 49



INNER TEST COMPARISON OF MINITHIN STRN. @ MAX STRS. VALUES FOR 5 SLICES

Figure 50

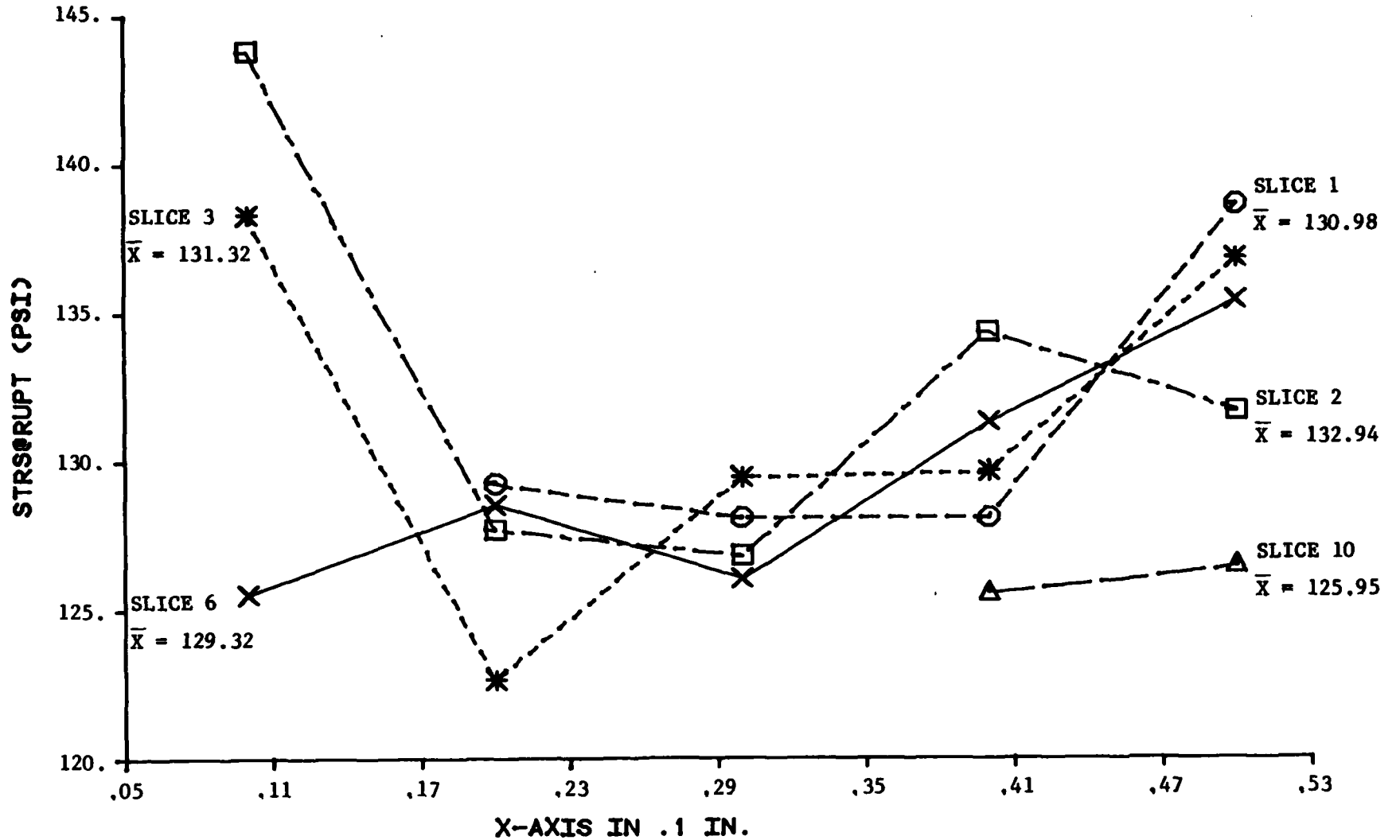

145.
140.
135.
130.
125.
120.
STRS@RUPT (PSI)
SLICE 3
X̄ = 131.32
SLICE 1
X̄ = 130.98
SLICE 2
X̄ = 132.94
SLICE 10
X̄ = 125.95
SLICE 6
X̄ = 129.32
.05
.11
.17
.23
.29
.35
.41
.47
.53
X-AXIS IN .1 IN.
INNER TEST COMPARISON OF MINITHIN STRESS AT RUPTURE VALUES FOR 5 SLICES

Figure 51

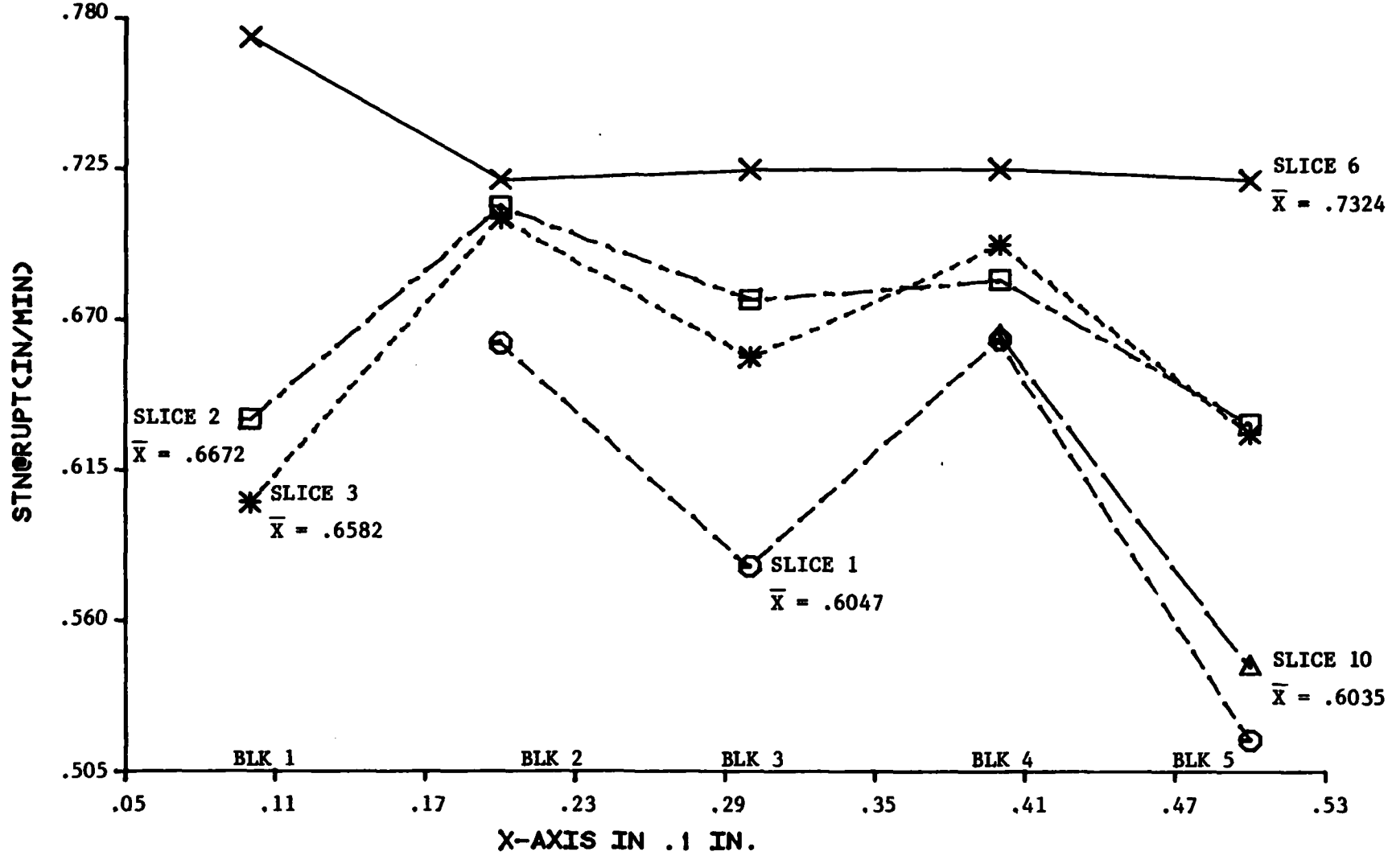
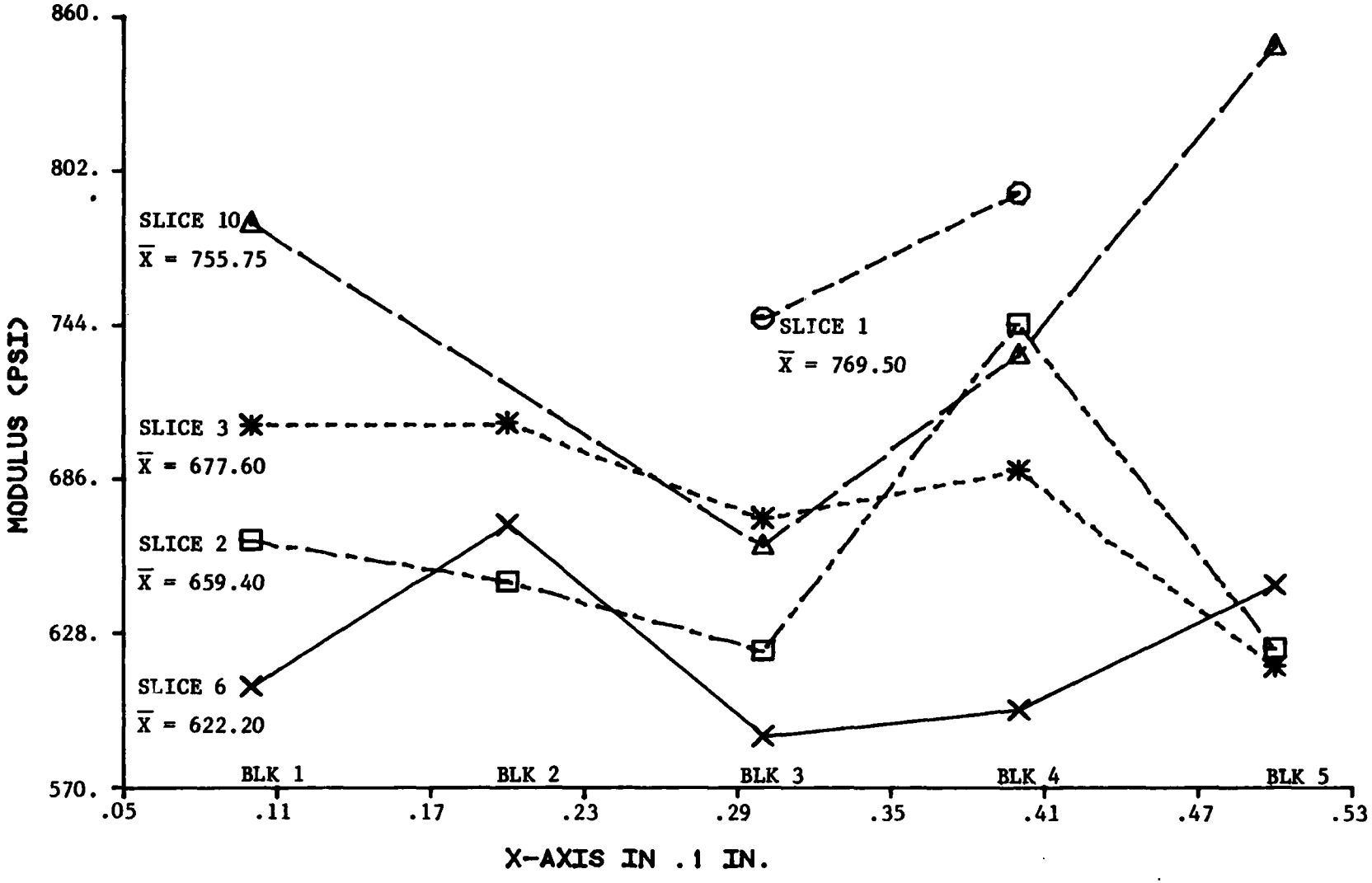
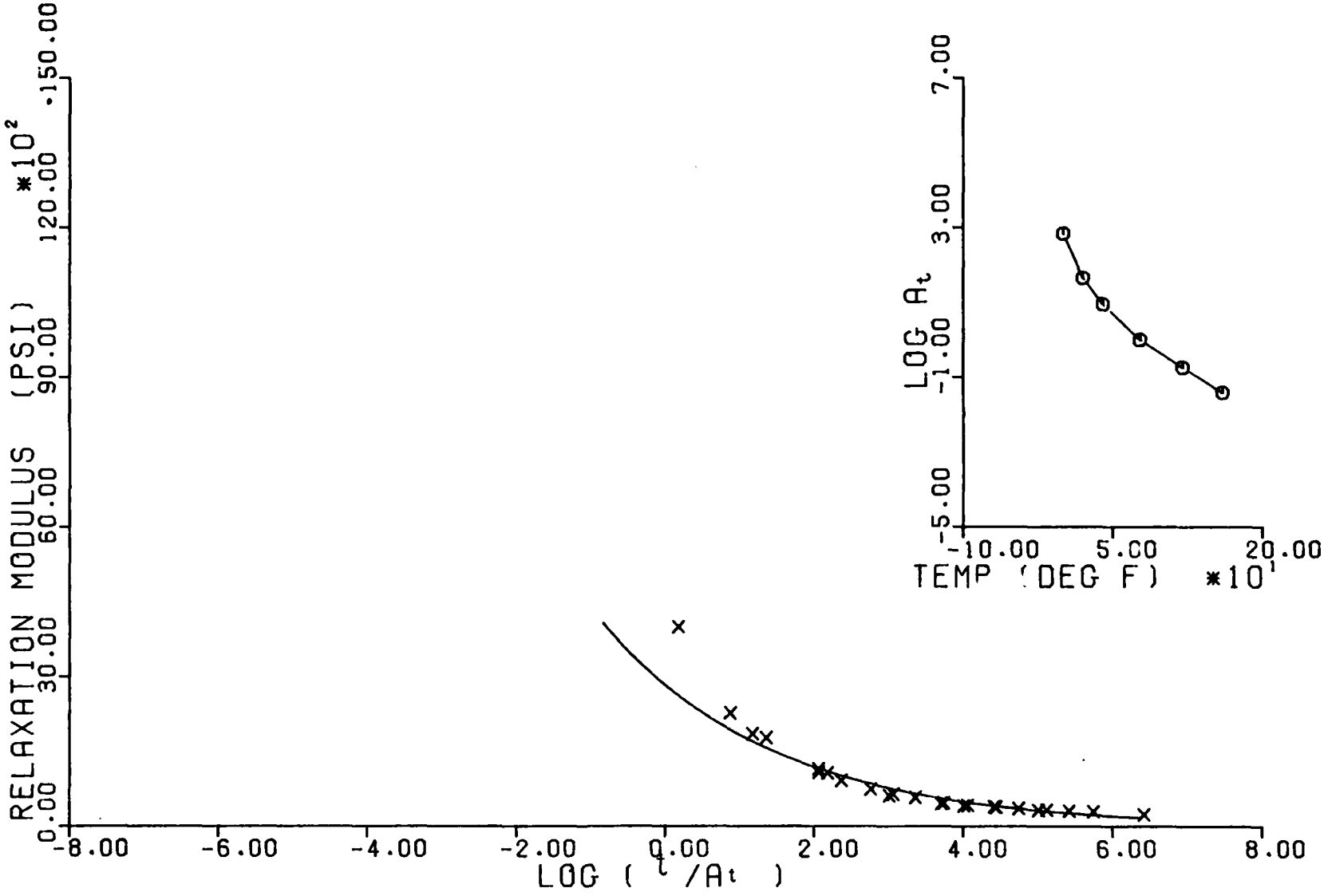

.780
.725
.670
.615
.560
.505
STN@RUPT(IN/MIN)
SLICE 6
X̄ = .7324
SLICE 2
X̄ = .6672
SLICE 3
X̄ = .6582
SLICE 1
X̄ = .6047
SLICE 10
X̄ = .6035
BLK 1
BLK 2
BLK 3
BLK 4
BLK 5
.05
.11
.17
.23
.29
.35
.41
.47
.53
X-AXIS IN .1 IN.
INNER TEST COMPARISON OF MINITHIN STRAIN @ RUPTURE VALUES FOR 5 SLICES

Figure 52



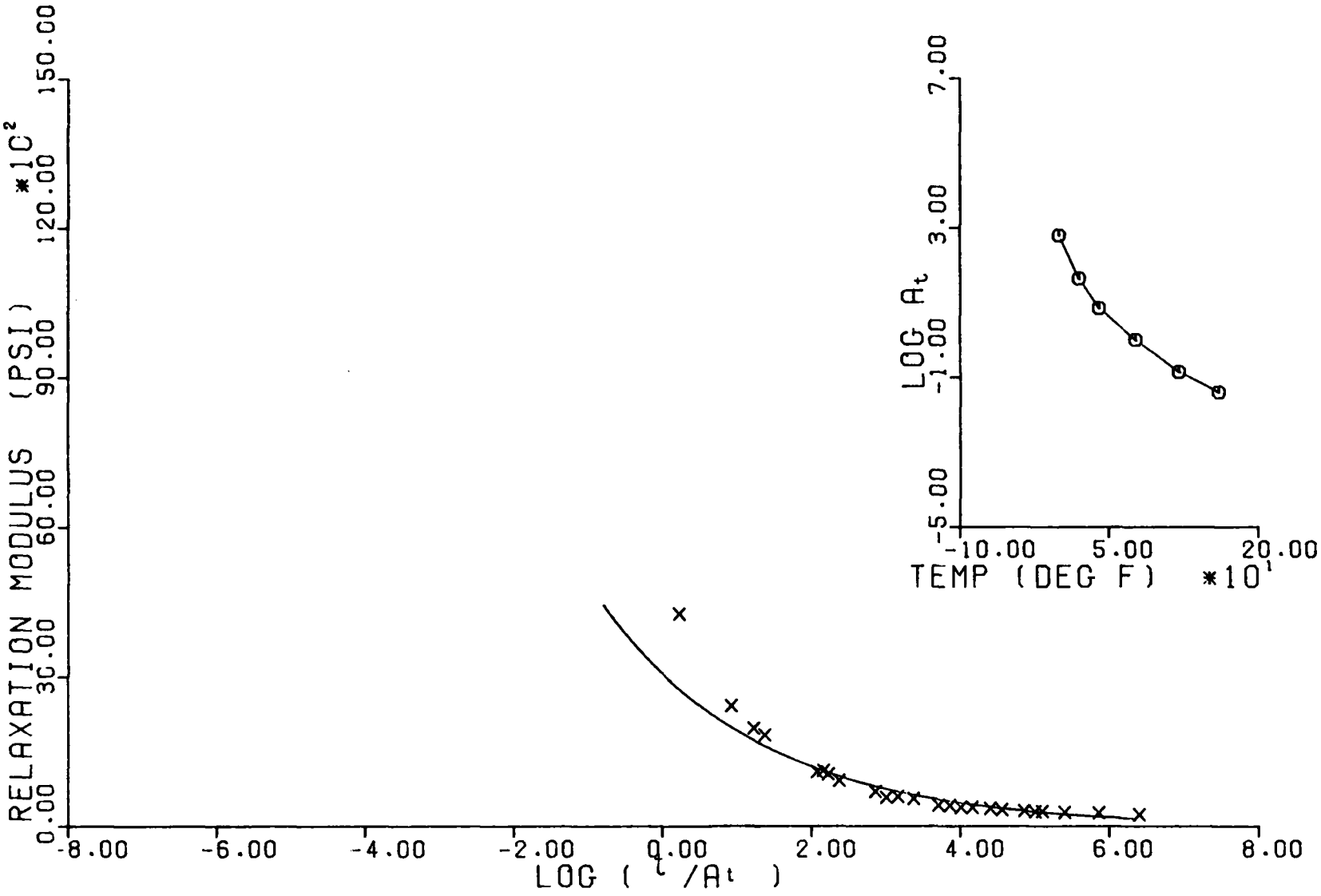
INNER TEST COMPARISON OF MINITHIN MODULUS VALUES FOR 5 SLICES

Figure 53



OUTER PROPELLANT STAGE II, STRESS RELAXATION MASTER PLOT AT 3.0% STRAIN

Figure 54



INNER PROPELLANT STAGE II, STRESS RELAXATION MASTER PLOT AT 3.0% STRAIN

Figure 55

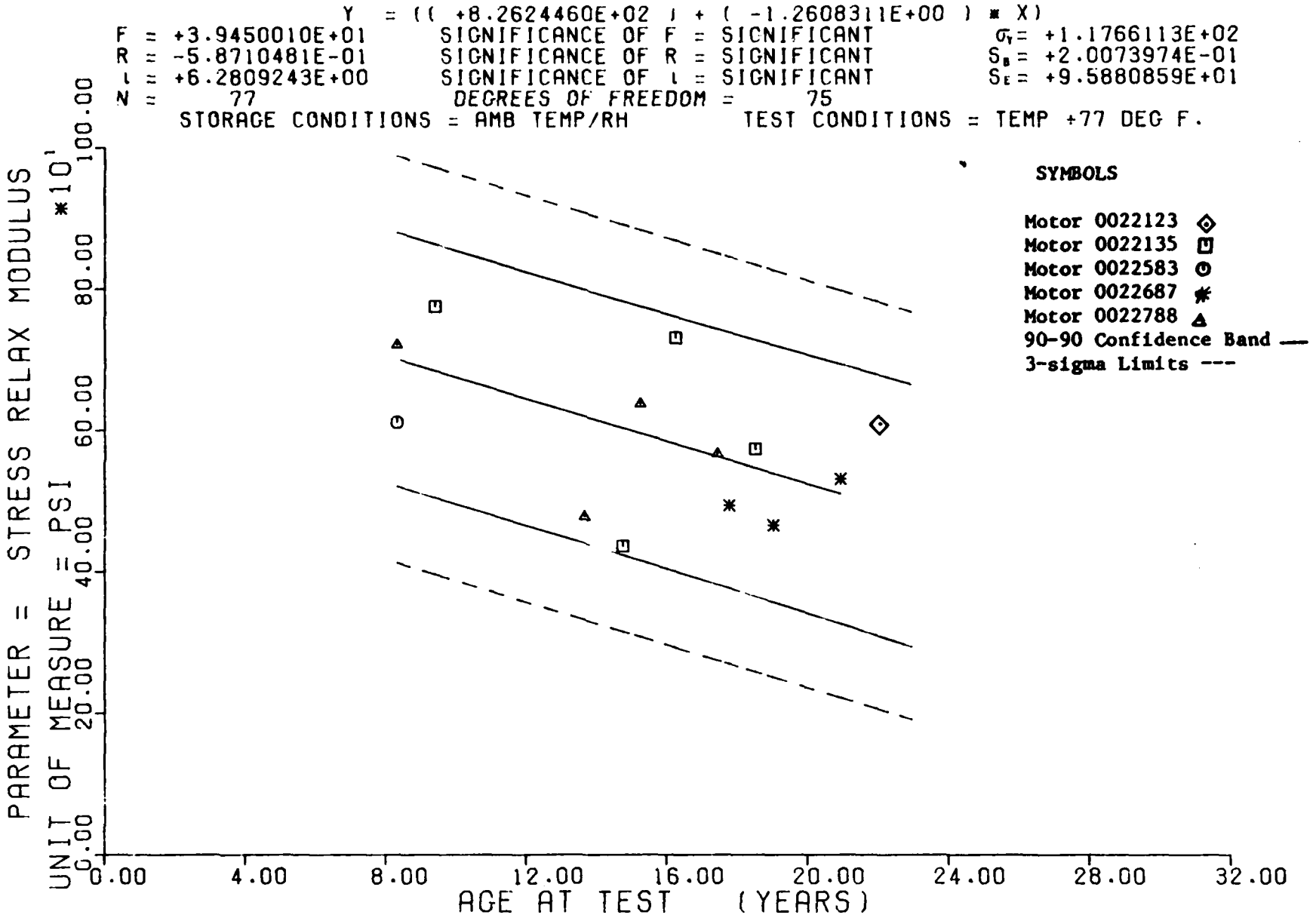

Y = ((+8.2624460E+02) + (-1.2608311E+00) * X)
F = +3.9450010E+01 SIGNIFICANCE OF F = SIGNIFICANT σY = +1.1766113E+02
R = -5.8710481E-01 SIGNIFICANCE OF R = SIGNIFICANT SB = +2.0073974E-01
t = +6.2809243E+00 SIGNIFICANCE OF t = SIGNIFICANT SE = +9.5880859E+01
N = 77 DEGREES OF FREEDOM = 75
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = TEMP +77 DEG F.
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS RELAX MODULUS
UNIT OF MEASURE = PSI *10¹
0.00
20.00
40.00
60.00
80.00
100.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II,DISSECTED MTRS,OUTER,STRESS RELAXATION,3 PERCENT,+77 DEG,10/SEC.

Figure 56

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
102.0	32	+6.6615625E+02	+7.2287110E+01	+8.1600000E+02	+5.1600000E+02	+7.0016137E+02
113.5	16	+7.7506250E+02	+7.5469613E+01	+8.8000000E+02	+6.6600000E+02	+6.8377050E+02
164.0	3	+4.7766650E+02	+8.0929937E+00	+4.8700000E+02	+4.7300000E+02	+6.1946826E+02
177.0	2	+4.3650000E+02	+3.3234018E+01	+4.6000000E+02	+4.1300000E+02	+6.0307739E+02
183.0	3	+6.3766650E+02	+6.6530694E+01	+7.0300000E+02	+5.7000000E+02	+5.9551245E+02
195.0	3	+7.3100000E+02	+2.0074859E+01	+7.5000000E+02	+7.1000000E+02	+5.8038232E+02
209.0	3	+5.6666650E+02	+1.2342339E+01	+5.7700000E+02	+5.5300000E+02	+5.6273071E+02
213.0	3	+4.9366650E+02	+5.5075705E+01	+5.4700000E+02	+4.3700000E+02	+5.5768750E+02
222.0	3	+5.7333325E+02	+3.3946035E+01	+6.1000000E+02	+5.4300000E+02	+5.4633984E+02
223.0	3	+4.6566650E+02	+7.4332585E+01	+5.2700000E+02	+3.8300000E+02	+5.3977490E+02
251.0	6	+5.3083325E+02	+6.1091461E+01	+6.0300000E+02	+4.5300000E+02	+5.0977587E+02

STAGE II,DISSECTED MTPS,OUTER,STRESS RELAXATION,3 PERCENT,+77 DEG,10/SEC,

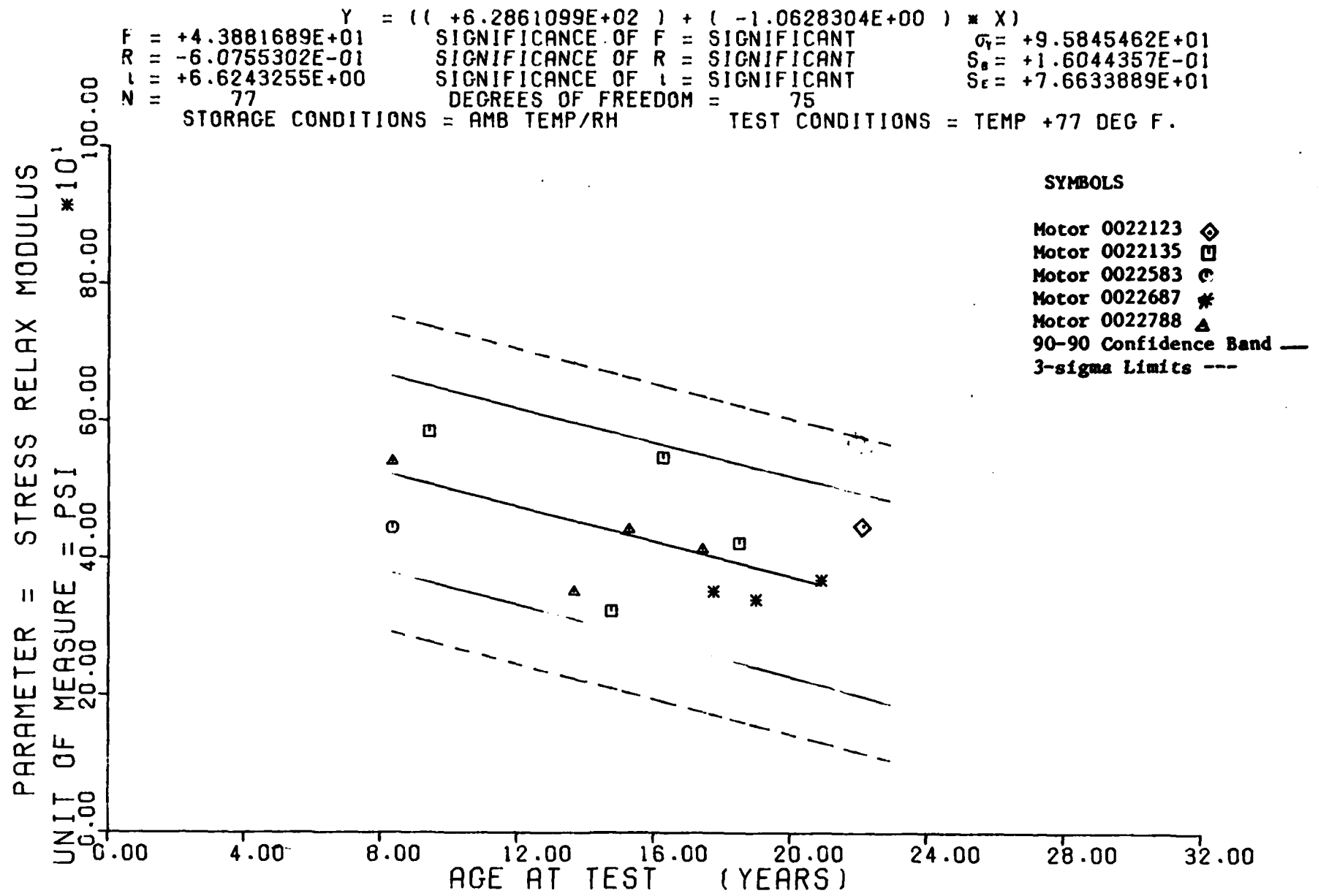

Y = ((+6.2861099E+02) + (-1.0628304E+00) * X)
F = +4.3881689E+01 SIGNIFICANCE OF F = SIGNIFICANT σY = +9.5845462E+01
R = -6.0755302E-01 SIGNIFICANCE OF R = SIGNIFICANT Sβ = +1.6044357E-01
t = +6.6243255E+00 SIGNIFICANCE OF t = SIGNIFICANT Sε = +7.6633889E+01
N = 77 DEGREES OF FREEDOM = 75
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = TEMP +77 DEG F.
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS RELAX MODULUS
UNIT OF MEASURE = PSI *10¹
100.00
80.00
60.00
40.00
20.00
0.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II,DISSECTED MTRS,OUTER,STRESS RELAXATION,3 PERCENT,+77 DEG,50/SEC.

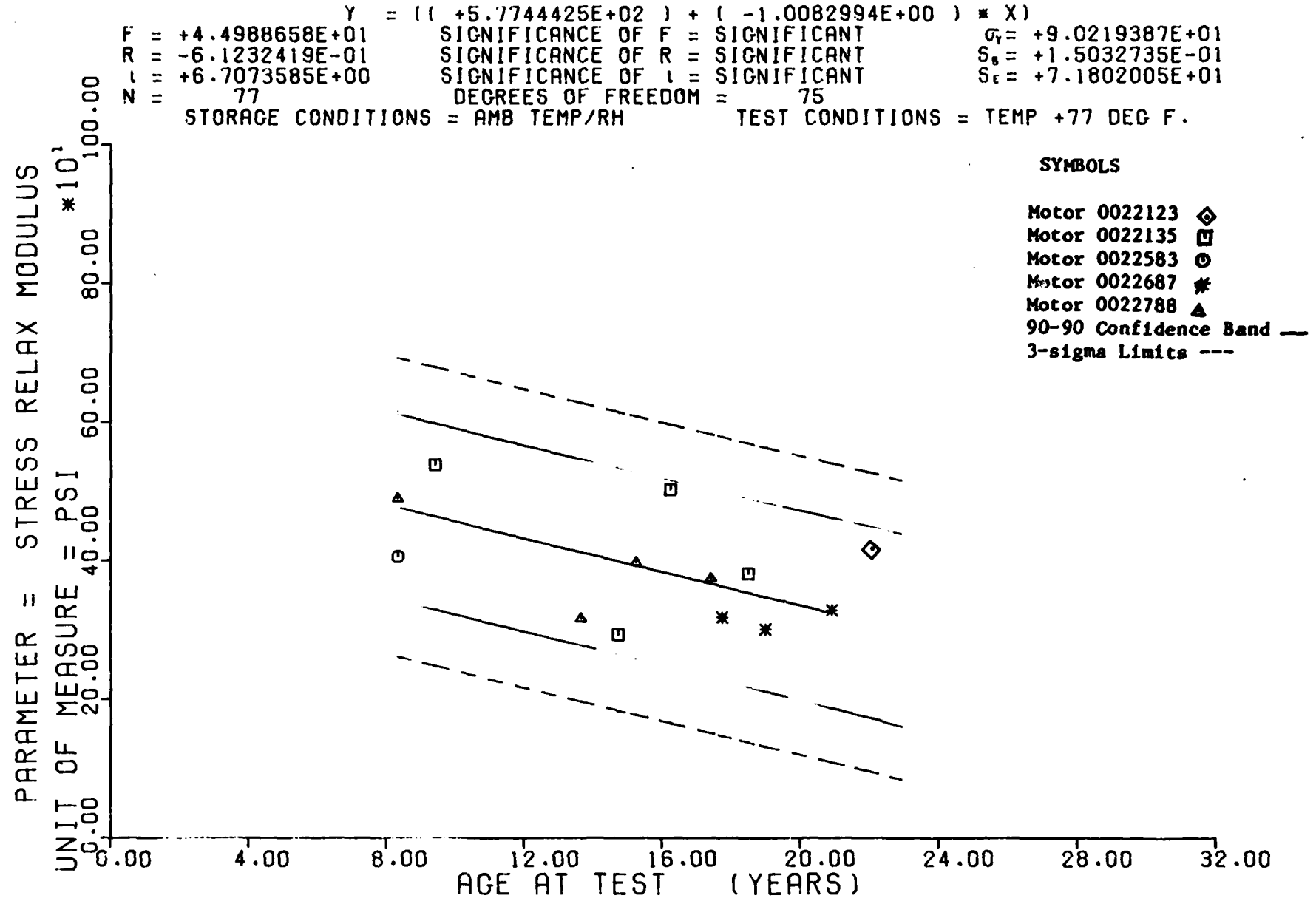
Figure 57

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	32	+4.9253750E+02	+6.1250378E+01	+6.1300000E+02	+3.7300000E+02	+5.2232788E+02
113.0	16	+5.8506250E+02	+5.7031533E+01	+6.6600000E+02	+5.0300000E+02	+5.0851098E+02
164.0	3	+3.5133325E+02	+5.1316014E+00	+3.5700000E+02	+3.4700000E+02	+4.5430664E+02
177.0	2	+3.2300000E+02	+2.8284271E+01	+3.4300000E+02	+3.0300000E+02	+4.4048999E+02
183.0	3	+4.4233325E+02	+5.3153864E+01	+4.9300000E+02	+3.8700000E+02	+4.3411279E+02
196.0	3	+5.4666650E+02	+1.8230011E+01	+5.6300000E+02	+5.2700000E+02	+4.2135889E+02
249.0	3	+4.1333325E+02	+1.3503086E+01	+4.2700000E+02	+4.0000000E+02	+4.0647924E+02
213.0	3	+3.5266000E+02	+4.1509035E+01	+3.9300000E+02	+3.1000000E+02	+4.0222802E+02
222.0	3	+4.2233325E+02	+2.5423086E+01	+4.5000000E+02	+4.0000000E+02	+3.9266259E+02
229.0	3	+3.4000000E+02	+5.6824290E+01	+3.9300000E+02	+2.8000000E+02	+3.8628564E+02
251.0	6	+3.6833325E+02	+4.7911629E+01	+4.2700000E+02	+3.0300000E+02	+3.6184033E+02

STAGE II,DISSECTED MTRS,OUTER,STRESS RELAXATION,3 PERCENT,+77 DEG,50/SEC.



STAGE II,DISSECTED MTRS,OUTER,STRESS RELAXATION,3 PERCENT,+77 DEG,100/SEC.

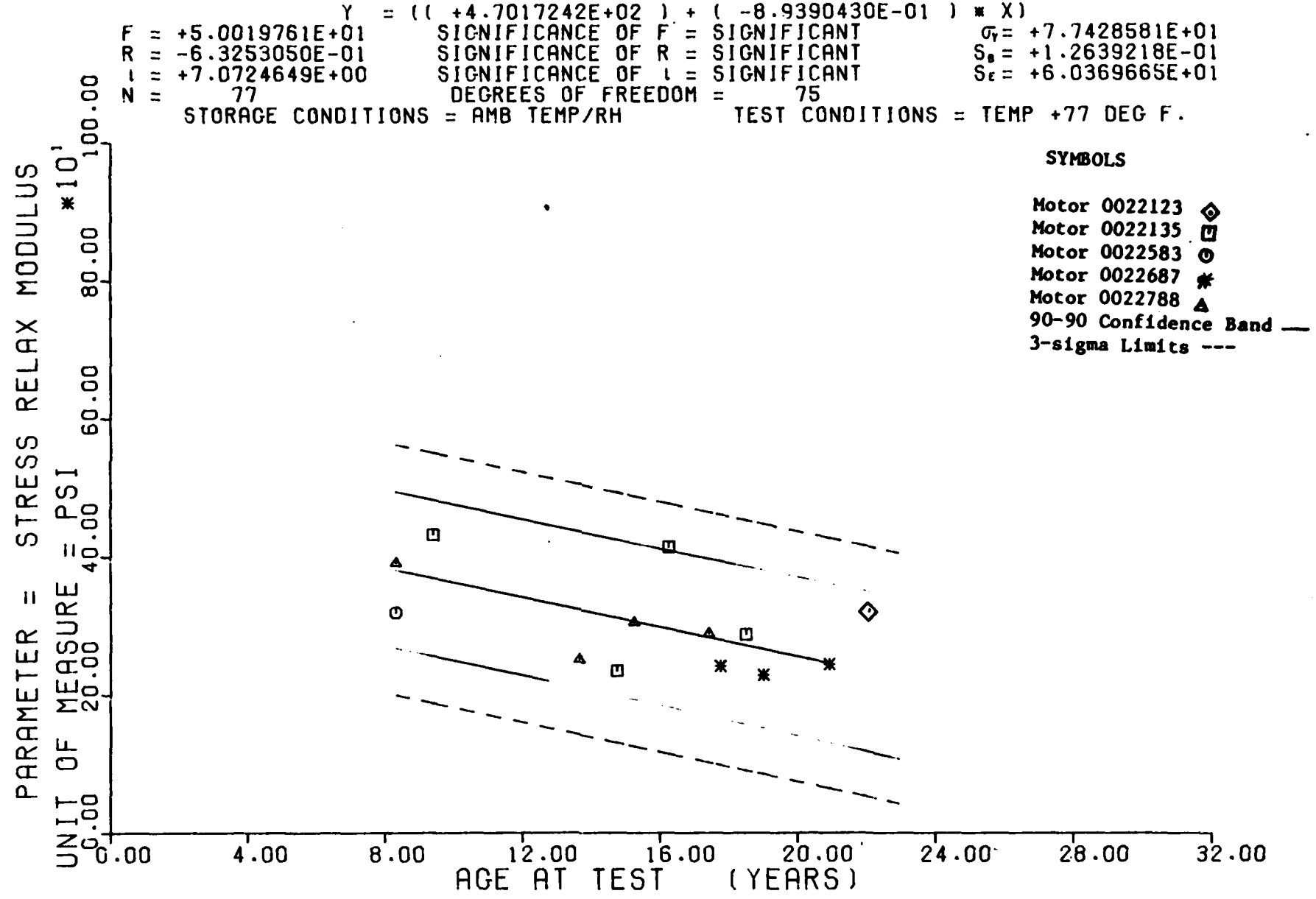
Figure 58

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	32	+4.4762500E+02	+5.5563374E+01	+5.6600000E+02	+3.3600000E+02	+4.7661425E+02
113.0	16	+5.3787500E+02	+5.2806407E+01	+6.1600000E+02	+4.6300000E+02	+4.6750634E+02
164.3	3	+3.1633325E+02	+5.7735026E+00	+3.2300000E+02	+3.1300000E+02	+4.1208300E+02
177.5	2	+2.9350000E+02	+2.3334523E+01	+3.1000000E+02	+2.7700000E+02	+3.9897500E+02
188.3	3	+3.5766650E+02	+5.2234725E+01	+4.4700000E+02	+3.4300000E+02	+3.9292539E+02
196.3	3	+5.0233325E+02	+1.7473709E+01	+5.1700000E+02	+4.8300000E+02	+3.9082568E+02
200.3	3	+3.7433325E+02	+1.2055427E+01	+3.8700000E+02	+3.6300000E+02	+3.8970947E+02
213.0	3	+3.1866000E+02	+3.8599739E+01	+3.5700000E+02	+2.8000000E+02	+3.8267626E+02
222.3	3	+3.8133325E+02	+2.3797758E+01	+4.0700000E+02	+3.6000000E+02	+3.8360156E+02
228.0	3	+3.9133325E+02	+4.8747649E+01	+3.4700000E+02	+2.5000000E+02	+3.8755175E+02
251.0	6	+3.2833325E+02	+4.2145778E+01	+3.8000000E+02	+2.7000000E+02	+3.8436083E+02

STAGE II,DISSECTED MTRS,OUTER,STRESS RELAXATION,3 PERCENT,+77 DEG.100/SEC.



STAGE II,DISSECTED MTRS,OUTER,STRESS RELAXATION,3 PERCENT,+77 DEG,1000/SEC.

Figure 59

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
160.0	32	+3.5631250E+02	+4.7120598E+01	+4.5600000E+02	+2.6600000E+02	+3.8078198E+02
113.0	16	+4.3187500E+02	+4.2797001E+01	+4.9300000E+02	+3.7300000E+02	+3.6916113E+02
164.0	3	+2.5133332E+02	+5.1316014E+00	+2.5700000E+02	+2.4700000E+02	+3.2357202E+02
177.0	2	+2.3500000E+02	+1.6970562E+01	+2.4700000E+02	+2.2300000E+02	+3.1195117E+02
183.0	3	+3.0533325E+02	+4.0203649E+01	+3.4300000E+02	+2.6300000E+02	+3.0658789E+02
195.0	3	+4.1433325E+02	+1.2503332E+01	+4.2300000E+02	+4.0000000E+02	+2.9586109E+02
209.0	3	+2.8500000E+02	+1.3114877E+01	+3.0300000E+02	+2.7700000E+02	+2.8334619E+02
213.0	3	+2.4200000E+02	+3.6049558E+01	+2.7300000E+02	+2.1300000E+02	+2.7977075E+02
222.0	3	+2.8700650E+02	+1.7473789E+01	+3.0700000E+02	+2.7300000E+02	+2.7172559E+02
228.0	3	+2.2866665E+02	+3.5019042E+01	+2.6300000E+02	+1.9300000E+02	+2.6636206E+02
251.0	6	+2.4450000E+02	+3.2328006E+01	+2.9000000E+02	+2.0000000E+02	+2.4580244E+02

STAGE II,DISSECTED MTRS,OUTER,STRESS RELAXATION,3 PERCENT,+77 DEG,1000/SEC.

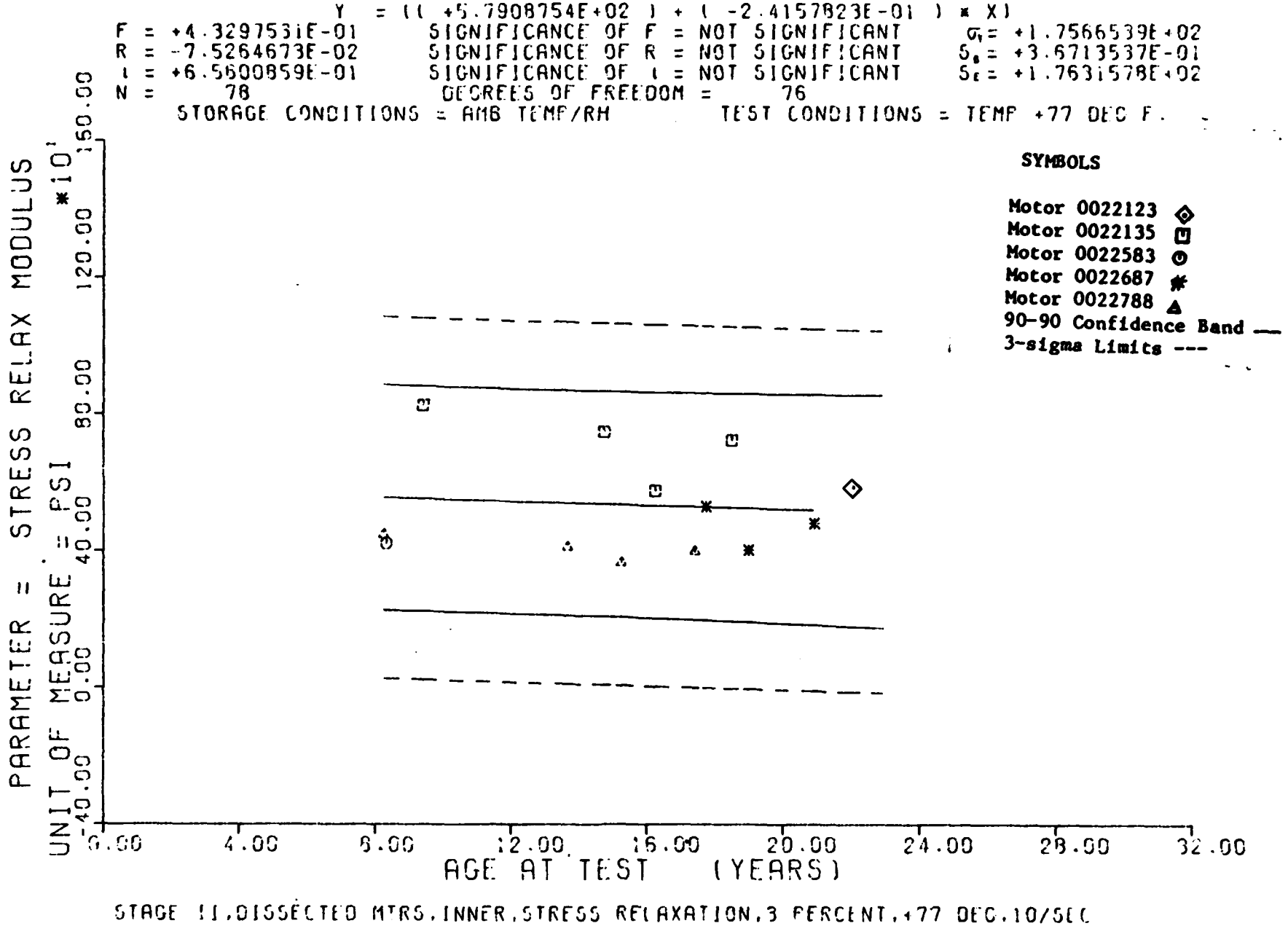

Y = (+5.7908754E+02) + (-2.4157823E-01) * X
F = +4.3297531E-01 SIGNIFICANCE OF F = NOT SIGNIFICANT σ1 = +1.7566539E+02
R = -7.5264673E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT Sb = +3.6713537E-01
I = +6.5600859E-01 SIGNIFICANCE OF I = NOT SIGNIFICANT Se = +1.7631578E+02
N = 78 DEGREES OF FREEDOM = 76
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = TEMP +77 DEG F.
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS RELAX MODULUS
UNIT OF MEASURE = PSI *10¹
160.00
120.00
80.00
40.00
0.00
-40.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II,DISSECTED MTRS,INNER,STRESS RELAXATION,3 PERCENT,+77 DEG,10/SEC

Figure 60

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	16	+4.4781250E+02	+3.3791949E+01	+5.3300000E+02	+4.0000000E+02	+5.5517114E+02
100.0	16	+4.2175000E+02	+8.0134470E+01	+5.1600000E+02	+2.9600000E+02	+5.5492968E+02
113.0	16	+8.2566750E+02	+6.2856151E+01	+9.0300000E+02	+6.9600000E+02	+5.5178906E+02
164.0	3	+4.1133325E+02	+2.5026652E+01	+4.3700000E+02	+3.8700000E+02	+5.3946850E+02
177.0	3	+7.4666650E+02	+4.8603840E+01	+7.9700000E+02	+7.0000000E+02	+5.3632812E+02
183.0	3	+3.6466650E+02	+1.9655363E+01	+3.8700000E+02	+3.5000000E+02	+5.3487866E+02
195.0	3	+5.7466650E+02	+5.8534889E+01	+6.4000000E+02	+5.2700000E+02	+5.3197973E+02
209.0	3	+3.9766650E+02	+3.0746273E+01	+4.3300000E+02	+3.7700000E+02	+5.2859765E+02
213.0	3	+5.2500000E+02	+6.3498031E+01	+5.7700000E+02	+4.5700000E+02	+5.2763134E+02
222.0	3	+7.2233325E+02	+5.0332229E+00	+7.2700000E+02	+7.1700000E+02	+5.2545703E+02
228.0	3	+4.0233325E+02	+8.0829037E+00	+4.0700000E+02	+3.9300000E+02	+5.2400756E+02
251.0	6	+4.7933325E+02	+1.9866219E+01	+4.9700000E+02	+4.4300000E+02	+5.1845117E+02

STAGE II,DISSECTED MTRS,INNER,STRESS RELAXATION,3 PERCENT,+77 DEG,10/SEC.

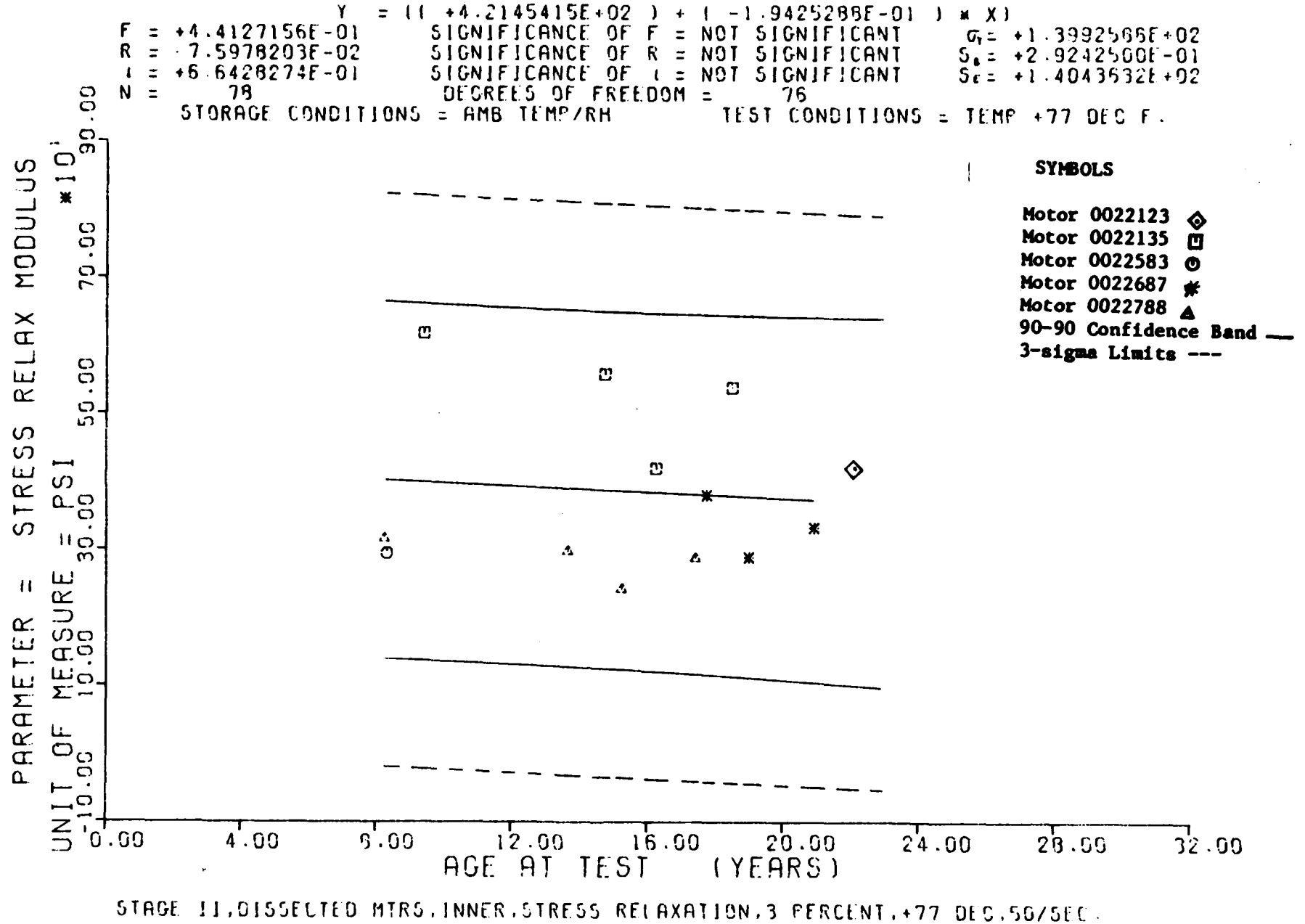

Y = (+4.2145415E+02) + (-1.9425288E-01) * X)
F = +4.4127156E-01 SIGNIFICANCE OF F = NOT SIGNIFICANT σ = +1.3992566E+02
R = -7.5978203E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT S = +2.9242500E-01
t = +6.6428274E-01 SIGNIFICANCE OF t = NOT SIGNIFICANT Se = +1.4043632E+02
N = 78 DEGREES OF FREEDOM = 76
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = TEMP +77 DEG F.
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS RELAX MODULUS *10¹
UNIT OF MEASURE = PSI
90.00
70.00
50.00
30.00
10.00
-10.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II,DISSECTED MTRS,INNER,STRESS RELAXATION,3 PERCENT,+77 DEG,50/SEC.

Figure 61

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	16	+3.1606250E+02	+2.4205973E+01	+3.8300000E+02	+2.8300000E+02	+4.0222390E+02
160.0	16	+2.9450000E+02	+6.3808045E+01	+3.8300000E+02	+2.0000000E+02	+4.0202880E+02
113.0	16	+6.1816750E+02	+4.5069159E+01	+6.7600000E+02	+5.2600000E+02	+3.9950341E+02
164.0	3	+2.9766650E+02	+1.6623276E+01	+3.1300000E+02	+2.8000000E+02	+3.8959667E+02
177.0	3	+5.5766650E+02	+3.6555893E+01	+5.9300000E+02	+5.2000000E+02	+3.8707128E+02
183.0	3	+2.4200000E+02	+1.5598457E+01	+2.6000000E+02	+2.3300000E+02	+3.8590576E+02
195.0	3	+4.1500000E+02	+4.3266615E+01	+4.6700000E+02	+3.8300000E+02	+3.8357470E+02
209.0	3	+2.8766650E+02	+2.8041635E+01	+3.2000000E+02	+2.7000000E+02	+3.8085522E+02
213.0	3	+3.8000000E+02	+5.2716221E+01	+4.2700000E+02	+3.2300000E+02	+3.8007812E+02
222.0	3	+5.3766650E+02	+4.0414518E+00	+5.4000000E+02	+5.3300000E+02	+3.7832983E+02
228.0	3	+2.8666650E+02	+5.1316014E+00	+2.9300000E+02	+2.8300000E+02	+3.7716430E+02
251.0	6	+3.3216650E+02	+1.2937026E+01	+3.4300000E+02	+3.0700000E+02	+3.7269653E+02

STAGE II,DISSECTED MTRS,INNER,STRESS RELAXATION,3 PERCENT,+77 DEG,50/SEC.

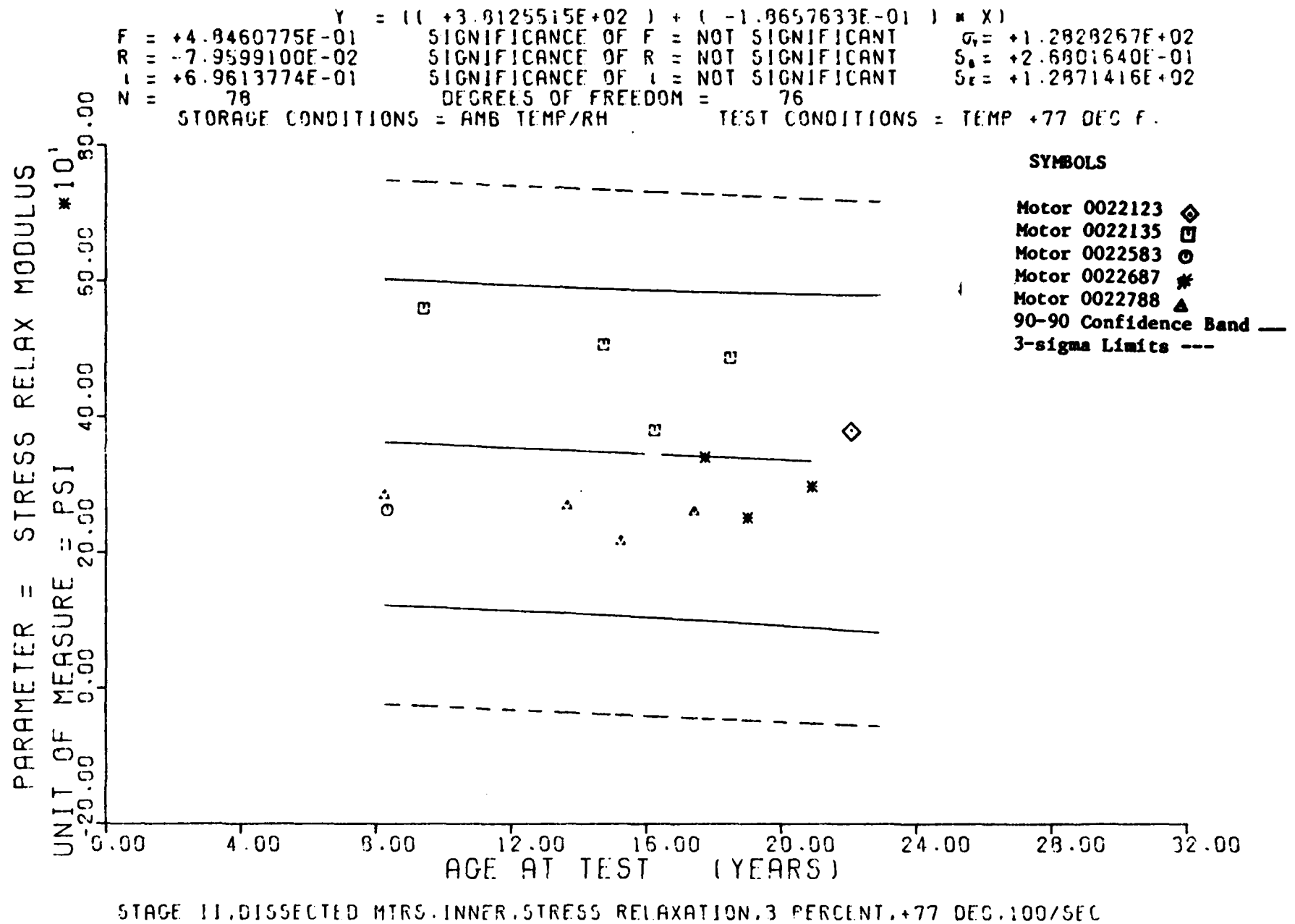

Y = (+3.8125515E+02) + (-1.8657633E-01) * X)
F = +4.8460775E-01 SIGNIFICANCE OF F = NOT SIGNIFICANT σ = +1.2828267E+02
R = -7.9599100E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT S = +2.6801640E-01
t = +6.9613774E-01 SIGNIFICANCE OF t = NOT SIGNIFICANT S = +1.2871416E+02
N = 78 DEGREES OF FREEDOM = 76
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = TEMP +77 DEG F.
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS RELAX MODULUS
UNIT OF MEASURE = PSI *10¹
80.00
60.00
40.00
20.00
0.00
-20.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II,DISSECTED MTRS.INNER,STRESS RELAXATION,3 PERCENT,+77 DEG,100/SEC

Figure 62

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	16	+2.8462500E+02	+2.1215953E+01	+3.4300000E+02	+2.6000000E+02	+3.6278393E+02
100.0	16	+2.6293750E+02	+5.6058860E+01	+3.3300000E+02	+1.8000000E+02	+3.6259741E+02
113.0	16	+5.6012500E+02	+4.3495402E+01	+6.1600000E+02	+4.6600000E+02	+3.6017187E+02
164.0	3	+2.6666650E+02	+1.6921386E+01	+2.8300000E+02	+2.5000000E+02	+3.5065649E+02
177.0	3	+5.0666650E+02	+3.2129944E+01	+5.3700000E+02	+4.7300000E+02	+3.4823095E+02
183.0	3	+2.1666665E+02	+1.4224392E+01	+2.3300000E+02	+2.0700000E+02	+3.4711157E+02
195.0	3	+3.8033325E+02	+4.1633319E+01	+4.2700000E+02	+3.4700000E+02	+3.4487255E+02
209.0	3	+2.6000000E+02	+2.6057628E+01	+2.9000000E+02	+2.4300000E+02	+3.4226049E+02
213.0	3	+3.4033325E+02	+5.0332229E+01	+3.8700000E+02	+2.8700000E+02	+3.4151416E+02
222.0	3	+4.8666650E+02	+3.5118845E+00	+4.9000000E+02	+4.8300000E+02	+3.3983520E+02
228.0	3	+2.5133332E+02	+5.1316014E+00	+2.5700000E+02	+2.4700000E+02	+3.3871557E+02
251.0	6	+2.9666650E+02	+1.2225656E+01	+3.0700000E+02	+2.7300000E+02	+3.3442431E+02

STAGE II,DISSECTED MTRS,INNER,STRESS RELAXATION,3 PERCENT,+77 DEG,100/SEC.

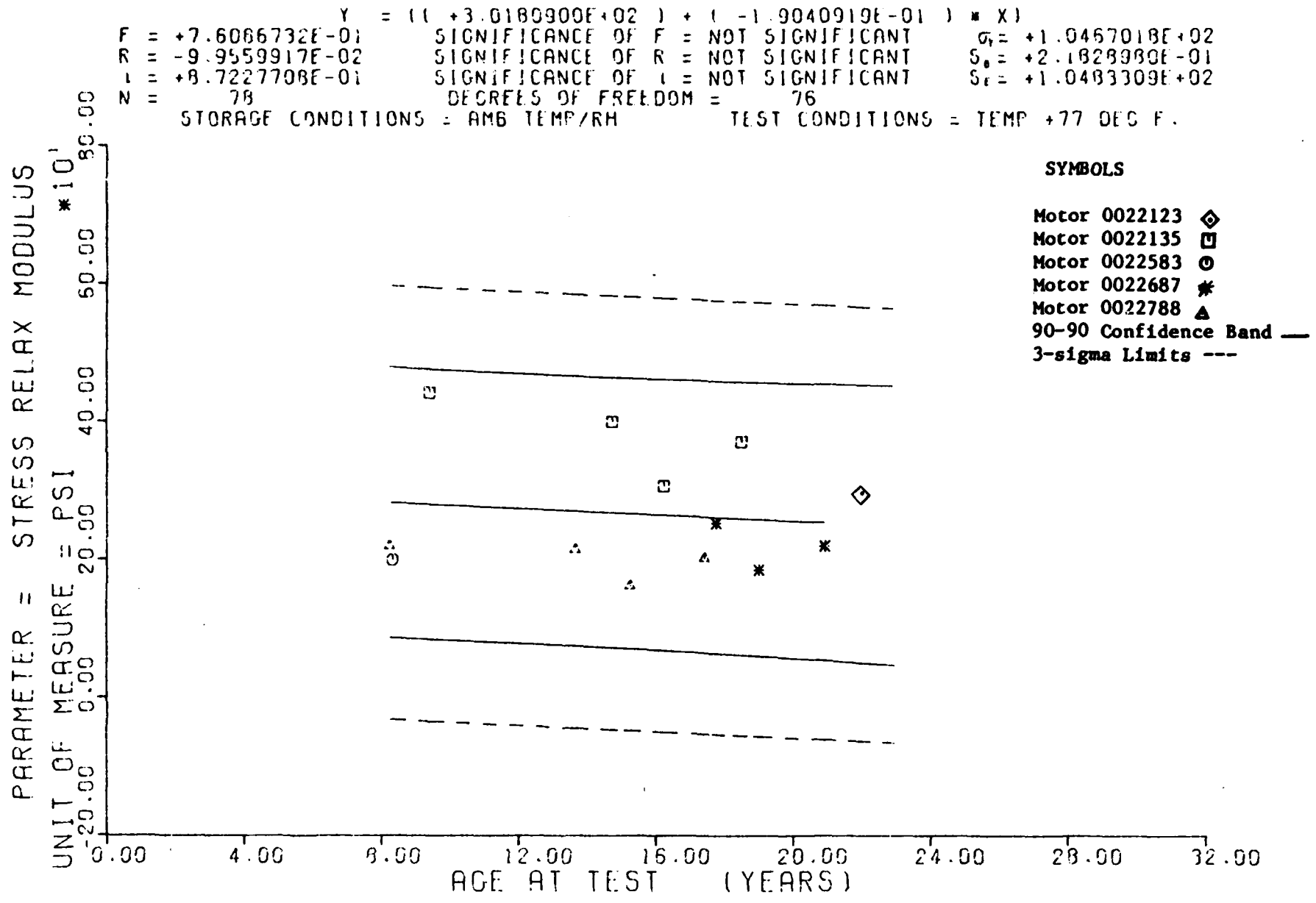

Y = (+3.0180900E+02) + (-1.9040919E-01) * X)
F = +7.6066732E-01 SIGNIFICANCE OF F = NOT SIGNIFICANT σt = +1.0467018E+02
R = -9.9559917E-02 SIGNIFICANCE OF R = NOT SIGNIFICANT Se = +2.1828980E-01
t = +8.7227708E-01 SIGNIFICANCE OF t = NOT SIGNIFICANT Sr = +1.0483309E+02
N = 78 DEGREES OF FREEDOM = 76
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = TEMP +77 DEG F.
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = STRESS RELAX MODULUS
UNIT OF MEASURE = PSI *10¹
80.00
60.00
40.00
20.00
0.00
-20.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II,DISSECTED MTRS.INNER,STRESS RELAXATION,3 PERCENT,+77 DEG,1000/SEC

Figure 63

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	16	+2.1987500E+02	+2.3056091E+01	+2.8300000E+02	+1.9300000E+02	+2.8295825E+02
103.0	16	+1.9581250E+02	+4.7622429E+01	+2.7600000E+02	+1.3300000E+02	+2.8276806E+02
113.0	16	+4.4206250E+02	+3.7404935E+01	+4.9300000E+02	+3.6300000E+02	+2.8029272E+02
164.0	3	+2.1466665E+02	+1.5695009E+01	+2.2700000E+02	+1.9700000E+02	+2.7058178E+02
177.0	3	+4.0000000E+02	+2.8618176E+01	+4.2700000E+02	+3.7000000E+02	+2.6810644E+02
183.0	3	+1.6233332E+02	+6.8068592E+00	+1.7000000E+02	+1.5700000E+02	+2.6696411E+02
195.0	3	+3.0666650E+02	+3.2593455E+01	+3.4300000E+02	+2.8000000E+02	+2.6467919E+02
209.0	3	+2.0233332E+02	+2.4006943E+01	+2.3000000E+02	+1.8700000E+02	+2.6201342E+02
213.0	3	+2.5333332E+02	+3.8630730E+01	+2.9000000E+02	+2.1300000E+02	+2.6125170E+02
222.0	3	+3.7100000E+02	+3.4641016E+00	+3.7300000E+02	+3.6700000E+02	+2.5953808E+02
228.0	3	+1.8566665E+02	+2.3094010E+00	+1.8700000E+02	+1.8300000E+02	+2.5839550E+02
251.0	6	+2.1983332E+02	+1.0264826E+01	+2.3000000E+02	+2.0000000E+02	+2.5401628E+02

STAGE II,DISSECTED MTRS,INNER,STRESS RELAXATION,3 PERCENT,+77 DEG,1000/SEC.

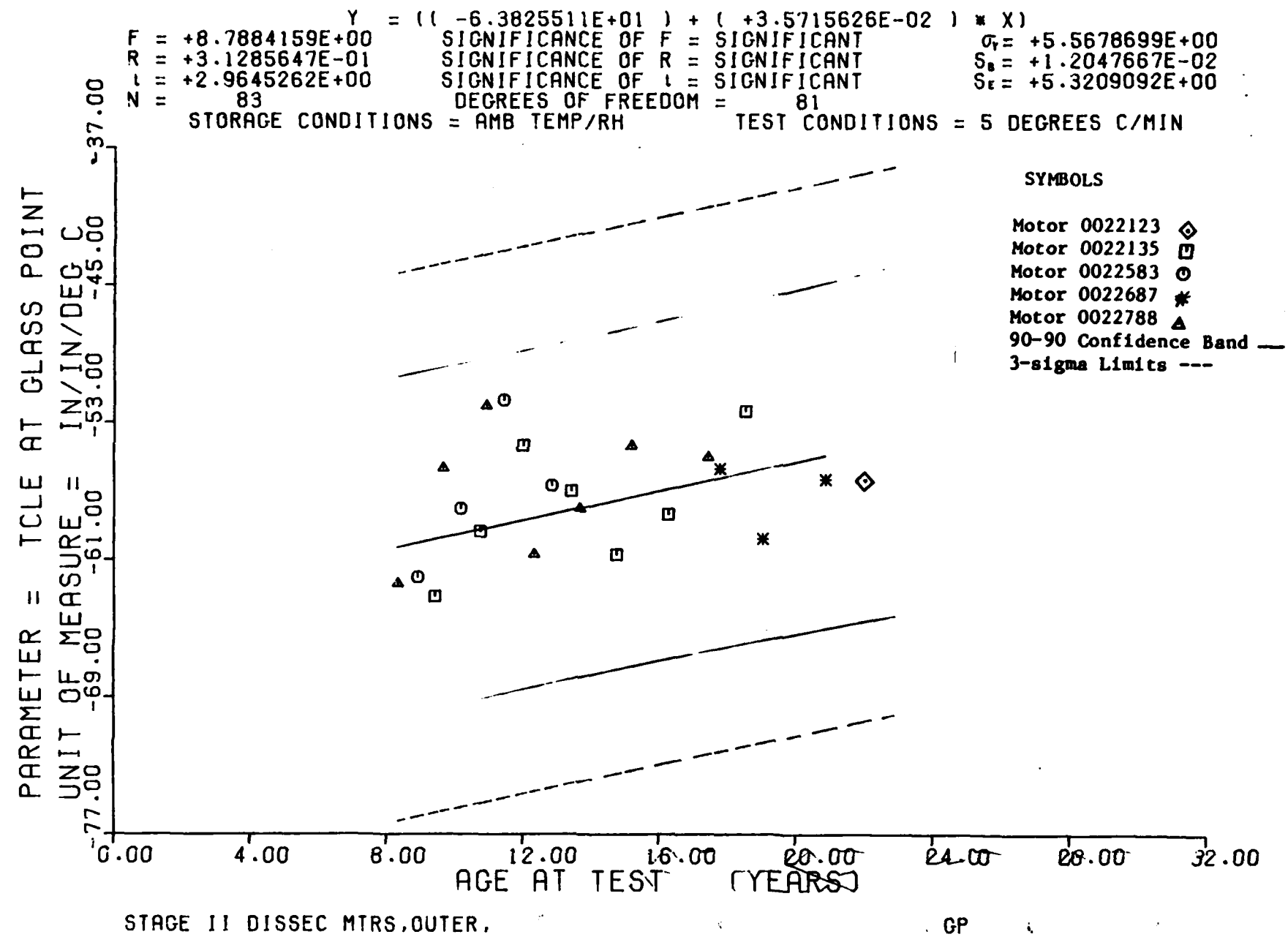

Y = ((-6.3825511E+01) + (+3.5715626E-02) * X)
F = +8.7884159E+00 SIGNIFICANCE OF F = SIGNIFICANT
R = +3.1285647E-01 SIGNIFICANCE OF R = SIGNIFICANT
N = 83 DEGREES OF FREEDOM = 81
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = 5 DEGREES C/MIN
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = TCLE AT GLASS POINT
UNIT OF MEASURE = IN/IN/DEG C
-37.00
-45.00
-53.00
-61.00
-69.00
-77.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II DISSEC MTRS,OUTER, GP

Figure 64

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	8	-6.2375000E+01	+5.6299581E+00	-5.4000000E+01	-7.1000000E+01	-6.0253936E+01
107.0	8	-6.2000000E+01	+6.1875450E+00	-5.4000000E+01	-7.1000000E+01	-6.0003936E+01
113.0	8	-6.3125000E+01	+9.8188957E+00	-4.9000000E+01	-7.9000000E+01	-5.9789642E+01
116.0	3	-5.5666656E+01	+1.5275252E+00	-5.4000000E+01	-5.7000000E+01	-5.9682495E+01
122.0	3	-5.8000000E+01	+2.6457513E+00	-5.6000000E+01	-6.1000000E+01	-5.9469200E+01
129.0	3	-5.9333328E+01	+3.0550504E+00	-5.6000000E+01	-6.2000000E+01	-5.9218185E+01
131.0	3	-5.2000000E+01	+6.0827625E+00	-4.8000000E+01	-5.9000000E+01	-5.9146759E+01
137.0	3	-5.1666656E+01	+2.3094010E+00	-4.9000000E+01	-5.3000000E+01	-5.8932464E+01
144.0	3	-5.4333328E+01	+1.5275252E+00	-5.3000000E+01	-5.6000000E+01	-5.8682449E+01
148.0	3	-6.0666656E+01	+5.7735026E-01	-6.0000000E+01	-6.1000000E+01	-5.8539596E+01
154.0	3	-5.6666656E+01	+5.8594652E+00	-5.0000000E+01	-6.1000000E+01	-5.8325302E+01
161.0	3	-5.7000000E+01	+1.9999990E+00	-5.5000000E+01	-5.9000000E+01	-5.8075286E+01
164.0	3	-5.8000006E+01	+2.6457513E+00	-5.5000000E+01	-6.0000000E+01	-5.7968139E+01
177.0	3	-6.0666656E+01	+2.0816659E+00	-5.9000000E+01	-6.3000000E+01	-5.7503845E+01
182.0	3	-5.4333328E+01	+5.7735026E-01	-5.4000000E+01	-5.5000000E+01	-5.7325256E+01
195.0	3	-5.8333328E+01	+5.7735026E-01	-5.8000000E+01	-5.9000000E+01	-5.6860961E+01
209.0	3	-5.5000000E+01	+5.1961524E+00	-4.9000000E+01	-5.8000000E+01	-5.6360931E+01
213.0	3	-5.5666656E+01	+2.0816659E+00	-5.4000000E+01	-5.8000000E+01	-5.6218078E+01
222.0	3	-5.2333328E+01	+1.5275252E+00	-5.1000000E+01	-5.4000000E+01	-5.5896636E+01
228.0	4	-5.9750000E+01	+1.7078251E+00	-5.8000000E+01	-6.2000000E+01	-5.5682342E+01
250.0	7	-5.6285705E+01	+2.2896885E+00	-5.3000000E+01	-6.0000000E+01	-5.4896591E+01

STAGE II DISSEC MTRS.CUTLR. GP

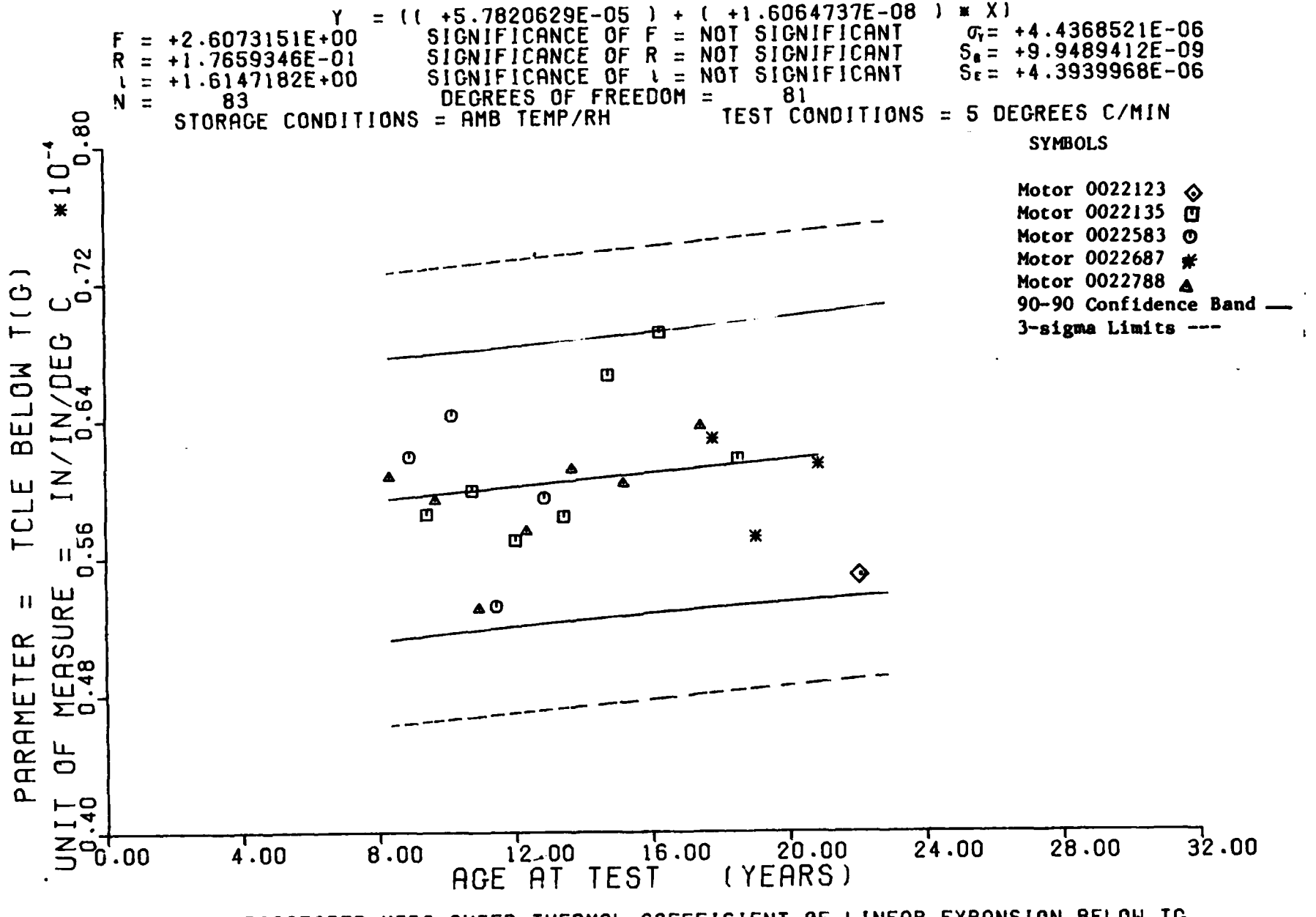

Y = ((+5.7820629E-05) + (+1.6064737E-08) * X)
F = +2.6073151E+00 SIGNIFICANCE OF F = NOT SIGNIFICANT
R = +1.7659346E-01 SIGNIFICANCE OF R = NOT SIGNIFICANT
N = 83 DEGREES OF FREEDOM = 81
STORAGE CONDITIONS = AMB TEMP/RH
TEST CONDITIONS = 5 DEGREES C/MIN
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = TCLE BELOW T(G)
UNIT OF MEASURE = IN/IN/DEG C *10^-4
0.40
0.48
0.56
0.64
0.72
0.80
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II DISSECTED MTRS,OUTER,THERMAL COEFFICIENT OF LINEAR EXPANSION BELOW TG

Figure 65

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	8	+6.0699938E-05	+3.6064478E-06	+6.4899999E-05	+5.5299999E-05	+5.9427096E-05
107.0	8	+6.1862403E-05	+2.0799505E-06	+6.5499989E-05	+5.8999998E-05	+5.9539554E-05
113.0	8	+5.8524950E-05	+2.8026965E-06	+6.2699997E-05	+5.5399999E-05	+5.9635931E-05
116.0	3	+5.9333324E-05	+1.8579646E-06	+6.0599995E-05	+5.7199998E-05	+5.9684127E-05
122.0	3	+6.4299980E-05	+2.3514223E-06	+6.6999986E-05	+6.2699997E-05	+5.9780519E-05
129.0	3	+5.9899990E-05	+4.8508042E-06	+6.5499989E-05	+5.6999997E-05	+5.9892976E-05
131.0	3	+5.3033320E-05	+5.9910167E-06	+5.9699988E-05	+4.8099987E-05	+5.9925107E-05
137.0	3	+5.3166659E-05	+3.5014814E-06	+5.6599994E-05	+4.9599999E-05	+6.0021484E-05
144.0	3	+5.6999982E-05	+5.3328859E-06	+6.1199985E-05	+5.0999995E-05	+6.0133941E-05
149.0	3	+5.7533325E-05	+4.7088606E-06	+6.2399994E-05	+5.2999996E-05	+6.0198202E-05
154.0	3	+5.9466648E-05	+1.8230929E-06	+6.1099999E-05	+5.7499986E-05	+6.0294594E-05
161.0	3	+5.8366655E-05	+2.3113455E-06	+6.0799997E-05	+5.6199991E-05	+6.0407037E-05
164.0	3	+6.1099985E-05	+2.5101019E-06	+6.3299987E-05	+5.7799989E-05	+6.0455233E-05
177.0	3	+6.6566659E-05	+3.0409544E-06	+6.9599991E-05	+6.3499988E-05	+6.0664082E-05
182.0	3	+6.0266655E-05	+7.0813469E-07	+6.0899998E-05	+5.9499987E-05	+6.0744408E-05
195.0	3	+6.9033325E-05	+2.2913684E-06	+7.1599992E-05	+6.7199987E-05	+6.0953243E-05
209.0	3	+6.3599989E-05	+5.2820047E-07	+6.4199994E-05	+6.3199986E-05	+6.1178157E-05
213.0	3	+6.2866660E-05	+1.7779052E-06	+6.4899999E-05	+6.1599988E-05	+6.1242404E-05
222.0	3	+6.1666651E-05	+1.2736753E-06	+6.2499995E-05	+6.0199992E-05	+6.1386992E-05
228.0	4	+5.7149984E-05	+5.7073593E-06	+6.3399987E-05	+4.9599999E-05	+6.1483384E-05
250.0	7	+6.1371363E-05	+3.4107091E-06	+6.5499989E-05	+5.5299999E-05	+6.1836906E-05

STAGE II DISSECTED MTRS,OUTER,THERMAL COEFFICIENT OF LINEAR EXPANSION BELOW TG

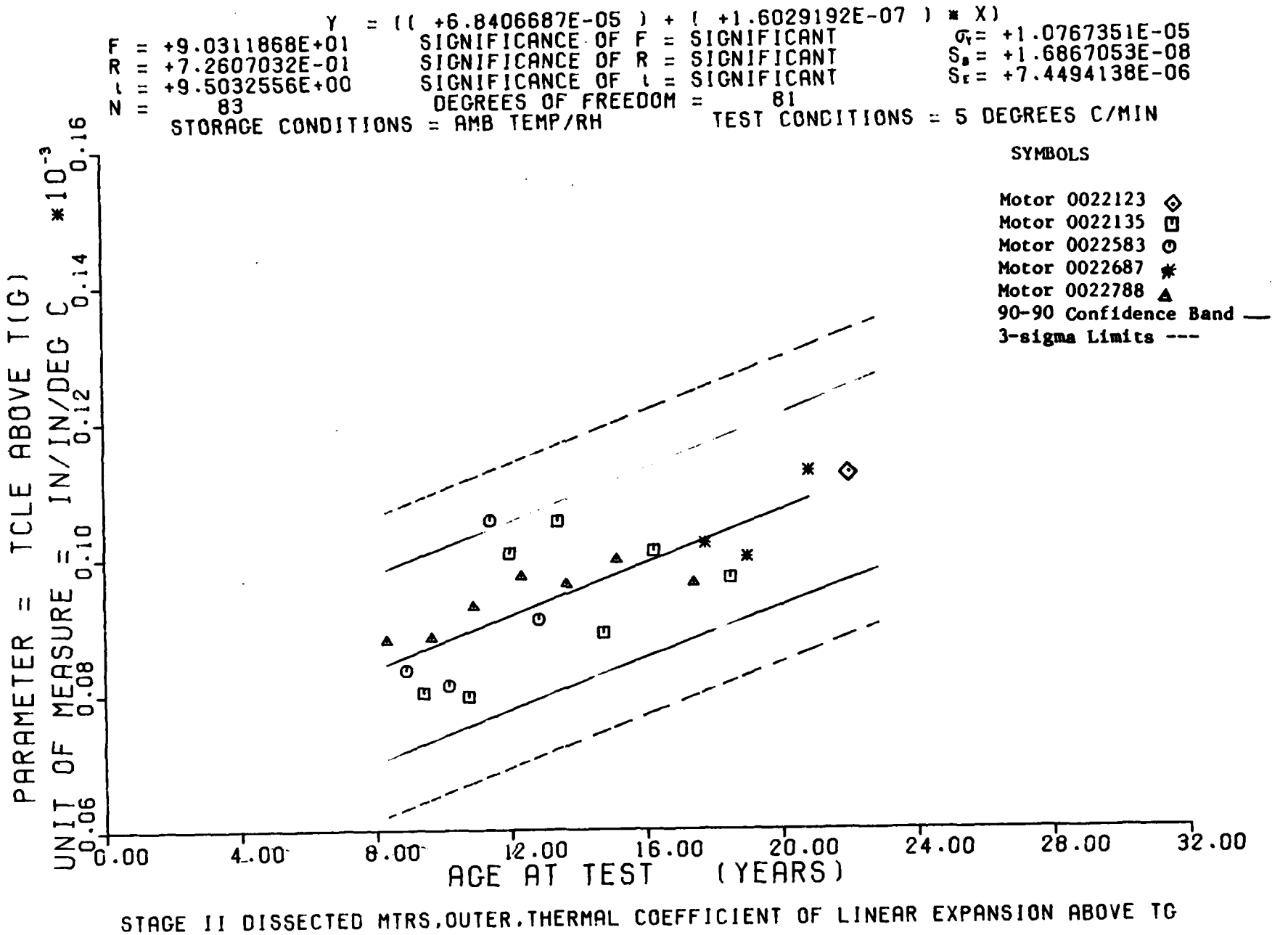

Y = ((+6.8406687E-05) + (+1.6029192E-07) * X)
F = +9.0311868E+01
R = +7.2607032E-01
L = +9.5032556E+00
N = 83
SIGNIFICANCE OF F = SIGNIFICANT
SIGNIFICANCE OF R = SIGNIFICANT
SIGNIFICANCE OF L = SIGNIFICANT
DEGREES OF FREEDOM = 81
σY = +1.0767351E-05
Sa = +1.6867053E-08
Sε = +7.4494138E-06
STORAGE CONDITIONS = AMB TEMP/RH
TEST CONDITIONS = 5 DEGREES C/MIN
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = TCLE ABOVE T(G)
UNIT OF MEASURE = IN/IN/DEG C *10-3
0.06
0.08
0.10
0.12
0.14
0.16
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II DISSECTED MTRS,OUTER,THERMAL COEFFICIENT OF LINEAR EXPANSION ABOVE TG

Figure 66

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
108.0	3	+8.7887397E-05	+6.7243431E-06	+1.0139998E-04	+8.2499987E-05	+8.4435872E-05
107.0	8	+8.3549908E-05	+8.4214479E-06	+9.4199989E-05	+7.0699999E-05	+8.5557912E-05
113.0	8	+8.0187397E-05	+4.4767035E-06	+8.7899999E-05	+7.4299998E-05	+8.6519663E-05
116.0	3	+8.8266635E-05	+2.5780471E-06	+9.0599991E-05	+8.5499996E-05	+8.7000546E-05
122.0	3	+9.1266654E-05	+1.3868678E-06	+8.2799990E-05	+8.0099998E-05	+8.7962296E-05
125.0	3	+7.9999994E-05	+9.5387530E-07	+8.0199999E-05	+7.8499986E-05	+8.9084336E-05
131.0	3	+9.2833302E-05	+4.1891645E-06	+9.5399998E-05	+8.7999986E-05	+8.9404915E-05
137.0	3	+1.0546660E-04	+2.6299175E-06	+1.0749998E-04	+1.0249999E-04	+9.0366680E-05
144.0	3	+1.0066665E-04	+1.4193142E-06	+1.0219999E-04	+9.9399985E-05	+9.1488720E-05
149.0	3	+9.7233249E-05	+4.4992218E-06	+1.0239999E-04	+9.4199989E-05	+9.2129877E-05
155.0	3	+9.0899950E-05	+2.9527387E-06	+9.2799993E-05	+8.7499996E-05	+9.3091643E-05
161.0	3	+1.0526666E-04	+2.4875833E-06	+1.0679999E-04	+1.0239999E-04	+9.4213683E-05
164.0	3	+9.6666622E-05	+1.8499562E-06	+9.8199991E-05	+9.4999995E-05	+9.4694515E-05
177.0	3	+9.8899934E-05	+3.5811211E-06	+9.1799985E-05	+8.4999991E-05	+9.6778356E-05
182.0	3	+9.9633267E-05	+3.2950454E-06	+1.0339998E-04	+9.7299998E-05	+9.7579817E-05
196.0	3	+1.0093332E-04	+2.2031194E-06	+1.0319998E-04	+9.8799995E-05	+9.9663608E-05
209.0	3	+9.6133284E-05	+3.6267633E-06	+1.0029999E-04	+9.3699985E-05	+1.0190768E-04
213.0	3	+1.0199991E-04	+3.1938033E-06	+1.0449999E-04	+9.8399992E-05	+1.0254886E-04
222.0	3	+9.6933290E-05	+5.7017583E-06	+1.0329998E-04	+9.2299989E-05	+1.0399149E-04
228.0	4	+9.9999946E-05	+2.9628903E-06	+1.0379999E-04	+9.6699994E-05	+1.0495324E-04
256.0	7	+1.1252847E-04	+6.2864267E-06	+1.2319999E-04	+1.0329998E-04	+1.0847966E-04

STAGE II DISSECTED MTRS,OUTER,THERMAL COEFFICIENT OF LINEAR EXPANSION ABOVE TG

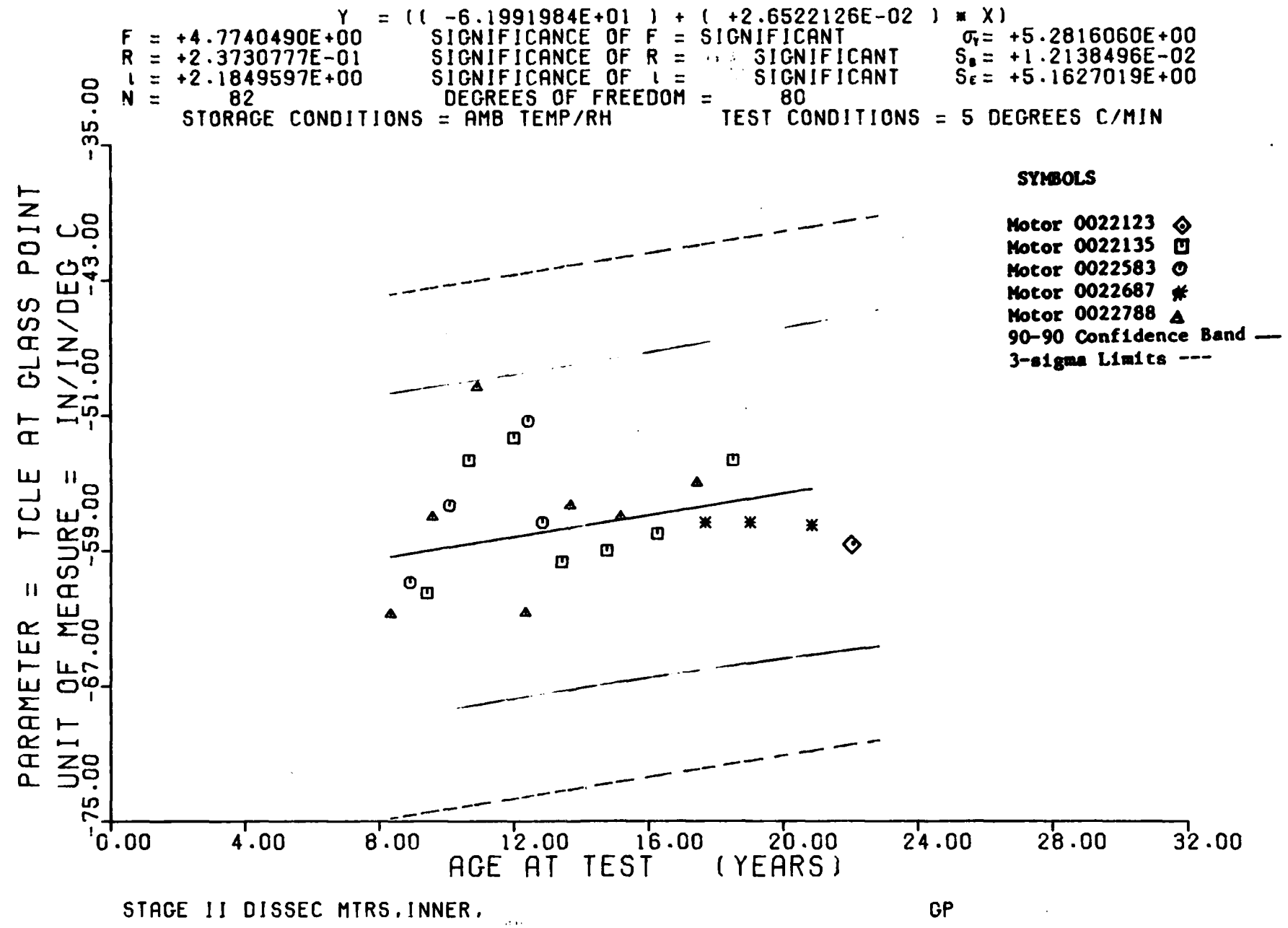

Y = ((-6.1991984E+01) + (+2.6522126E-02) * X)
F = +4.7740490E+00 SIGNIFICANCE OF F = SIGNIFICANT
R = +2.3730777E-01 SIGNIFICANCE OF R = SIGNIFICANT
ι = +2.1849597E+00 SIGNIFICANCE OF ι = SIGNIFICANT
N = 82 DEGREES OF FREEDOM = 80
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = 5 DEGREES C/MIN
σY = +5.2816060E+00
Sa = +1.2138496E-02
Sε = +5.1627019E+00
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = TCLE AT GLASS POINT
UNIT OF MEASURE = IN/IN/DEG C
-35.00
-43.00
-51.00
-59.00
-67.00
-75.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II DISSEC MTRS,INNER,
GP

Figure 67

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	8	-6.2750000E+01	+1.0336983E+00	-6.1000000E+01	-6.4000000E+01	-5.9339767E+01
107.0	8	-6.0875000E+01	+3.9798600E+00	-5.6000000E+01	-6.7000000E+01	-5.9154113E+01
113.0	8	-6.1500000E+01	+9.4346225E+00	-5.1000000E+01	-7.4000000E+01	-5.8994979E+01
115.0	3	-5.7000000E+01	+1.0000000E+00	-5.6000000E+01	-5.8000000E+01	-5.8941940E+01
121.0	3	-5.6333328E+01	+2.0816659E+00	-5.4000000E+01	-5.8000000E+01	-5.8782906E+01
128.0	3	-5.3666656E+01	+8.5049005E+00	-4.4000000E+01	-6.0000000E+01	-5.8597152E+01
131.0	3	-4.9333328E+01	+1.1547005E+00	-4.8000000E+01	-5.0000000E+01	-5.8517578E+01
144.0	3	-5.2333328E+01	+2.5166114E+00	-5.0000000E+01	-5.5000000E+01	-5.8172790E+01
148.0	3	-6.2666656E+01	+2.5166114E+00	-6.0000000E+01	-6.5000000E+01	-5.8066696E+01
149.0	3	-5.1333328E+01	+1.5275252E+00	-5.0000000E+01	-5.3000000E+01	-5.8040176E+01
154.0	3	-5.7333328E+01	+1.3428824E+01	-4.2000000E+01	-6.7000000E+01	-5.7907562E+01
161.0	3	-5.9666656E+01	+1.1547005E+00	-5.9000000E+01	-6.1000000E+01	-5.7721909E+01
164.0	3	-5.6333328E+01	+5.7735026E-01	-5.6000000E+01	-5.7000000E+01	-5.7642349E+01
177.0	4	-5.9000000E+01	+1.4142135E+00	-5.7000000E+01	-6.0000000E+01	-5.7297561E+01
182.0	3	-5.7000000E+01	+1.7320508E+00	-5.5000000E+01	-5.8000000E+01	-5.7164947E+01
195.0	3	-5.8000000E+01	+0.0000000E+07	-5.8000000E+01	-5.8000000E+01	-5.6820159E+01
209.0	3	-5.5000000E+01	+1.0000000E+00	-5.4000000E+01	-5.6000000E+01	-5.6448852E+01
212.0	3	-5.7333328E+01	+1.5275252E+00	-5.6000000E+01	-5.9000000E+01	-5.6369293E+01
222.0	3	-5.3666656E+01	+2.0816659E+00	-5.2000000E+01	-5.6000000E+01	-5.6104064E+01
228.0	3	-5.7333328E+01	+2.3094010E+00	-5.6000000E+01	-6.0000000E+01	-5.5944931E+01
250.0	6	-5.7500000E+01	+1.3784048E+00	-5.6000000E+01	-5.9000000E+01	-5.5361450E+01

STAGE II DISSEC MTRS.INNER. GP

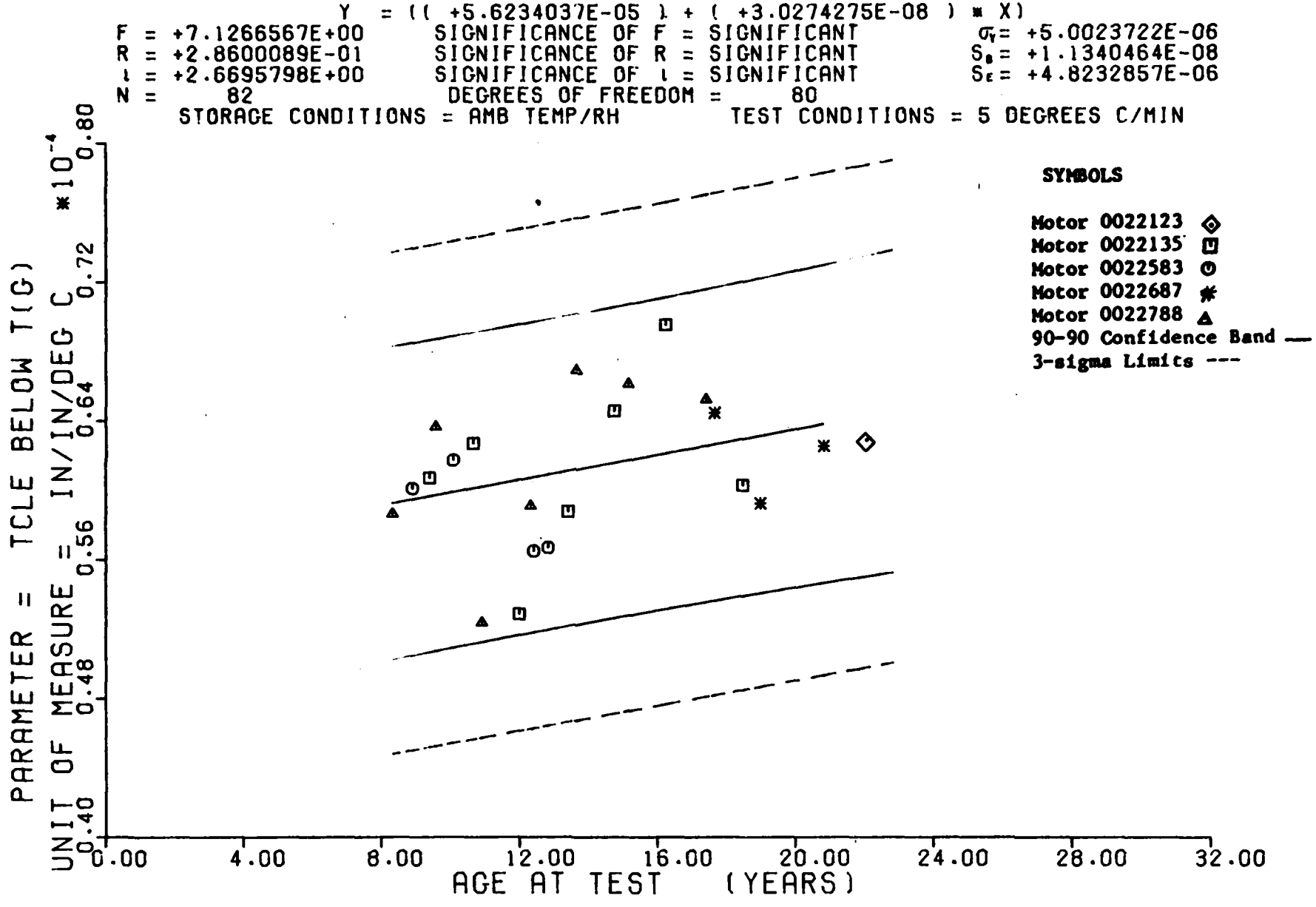

Y = ((+5.6234037E-05) + (+3.0274275E-08) * X)
F = +7.1266567E+00 SIGNIFICANCE OF F = SIGNIFICANT
R = +2.8600089E-01 SIGNIFICANCE OF R = SIGNIFICANT
ι = +2.6695798E+00 SIGNIFICANCE OF ι = SIGNIFICANT
N = 82 DEGREES OF FREEDOM = 80
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = 5 DEGREES C/MIN
σγ = +5.0023722E-06
Sβ = +1.1340464E-08
Sε = +4.8232857E-06
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = TCLE BELOW T(G)
UNIT OF MEASURE = IN/IN/DEG C *10⁻⁴
0.40
0.48
0.56
0.64
0.72
0.80
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II DISSECTED MTRS,INNER,THERMAL COEFFICIENT OF LINEAR EXPANSION BELOW TG

Figure 68

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
100.0	8	+5.8637437E-05	+2.4279840E-06	+6.1499988E-05	+5.4899996E-05	+5.9261452E-05
107.0	8	+6.0087448E-05	+2.5182062E-06	+6.3599989E-05	+5.5999989E-05	+5.9473371E-05
113.0	8	+6.0699909E-05	+5.1938638E-06	+6.9599991E-05	+5.1699986E-05	+5.9655023E-05
115.0	3	+6.3666651E-05	+2.0206461E-06	+6.5499989E-05	+6.1499988E-05	+5.9715574E-05
121.0	3	+6.1733313E-05	+2.6310222E-06	+6.3399987E-05	+5.8699995E-05	+5.9897211E-05
128.0	3	+6.2699982E-05	+1.2488934E-06	+6.3699990E-05	+6.1299986E-05	+6.0109130E-05
131.0	3	+5.2366653E-05	+3.8692205E-06	+5.5999989E-05	+4.8299989E-05	+6.0199963E-05
144.0	3	+5.2866656E-05	+1.0500996E-06	+5.3899988E-05	+5.1799986E-05	+6.0593520E-05
148.0	3	+5.9099984E-05	+1.2286026E-06	+6.0499995E-05	+5.8199992E-05	+6.0714621E-05
149.0	3	+5.6499993E-05	+3.4217223E-06	+5.8999998E-05	+5.2599993E-05	+6.0744903E-05
154.0	3	+5.6699995E-05	+6.6774758E-06	+6.2499995E-05	+4.9399997E-05	+6.0896272E-05
161.0	3	+5.8766658E-05	+5.6000647E-06	+6.1999991E-05	+5.2299990E-05	+6.1108192E-05
164.0	3	+6.6899985E-05	+3.1439993E-06	+6.9099987E-05	+6.3299987E-05	+6.1199010E-05
177.0	4	+6.4574938E-05	+4.4583326E-06	+7.0199996E-05	+6.0799997E-05	+6.1592591E-05
182.0	3	+6.6133317E-05	+1.8553018E-06	+6.7899993E-05	+6.4199994E-05	+6.1743950E-05
195.0	3	+6.9533329E-05	+1.5011162E-06	+7.0399997E-05	+6.7799992E-05	+6.2137507E-05
209.0	3	+6.5233325E-05	+3.3291546E-06	+6.9899986E-05	+6.2399994E-05	+6.2561346E-05
218.0	3	+6.4466657E-05	+4.2712507E-06	+6.9199988E-05	+6.0899998E-05	+6.2852179E-05
222.0	3	+6.0266655E-05	+2.8886104E-06	+6.3599989E-05	+5.8499994E-05	+6.2954917E-05
228.0	3	+5.9233323E-05	+2.6649306E-06	+6.1199985E-05	+5.6199991E-05	+6.3136569E-05
250.0	6	+6.2533305E-05	+4.9246900E-06	+7.1099988E-05	+5.7699988E-05	+6.3902595E-05

STAGE II DISSECTED MTRS,INNER,THERMAL COEFFICIENT OF LINEAR EXPANSION BELOW TG

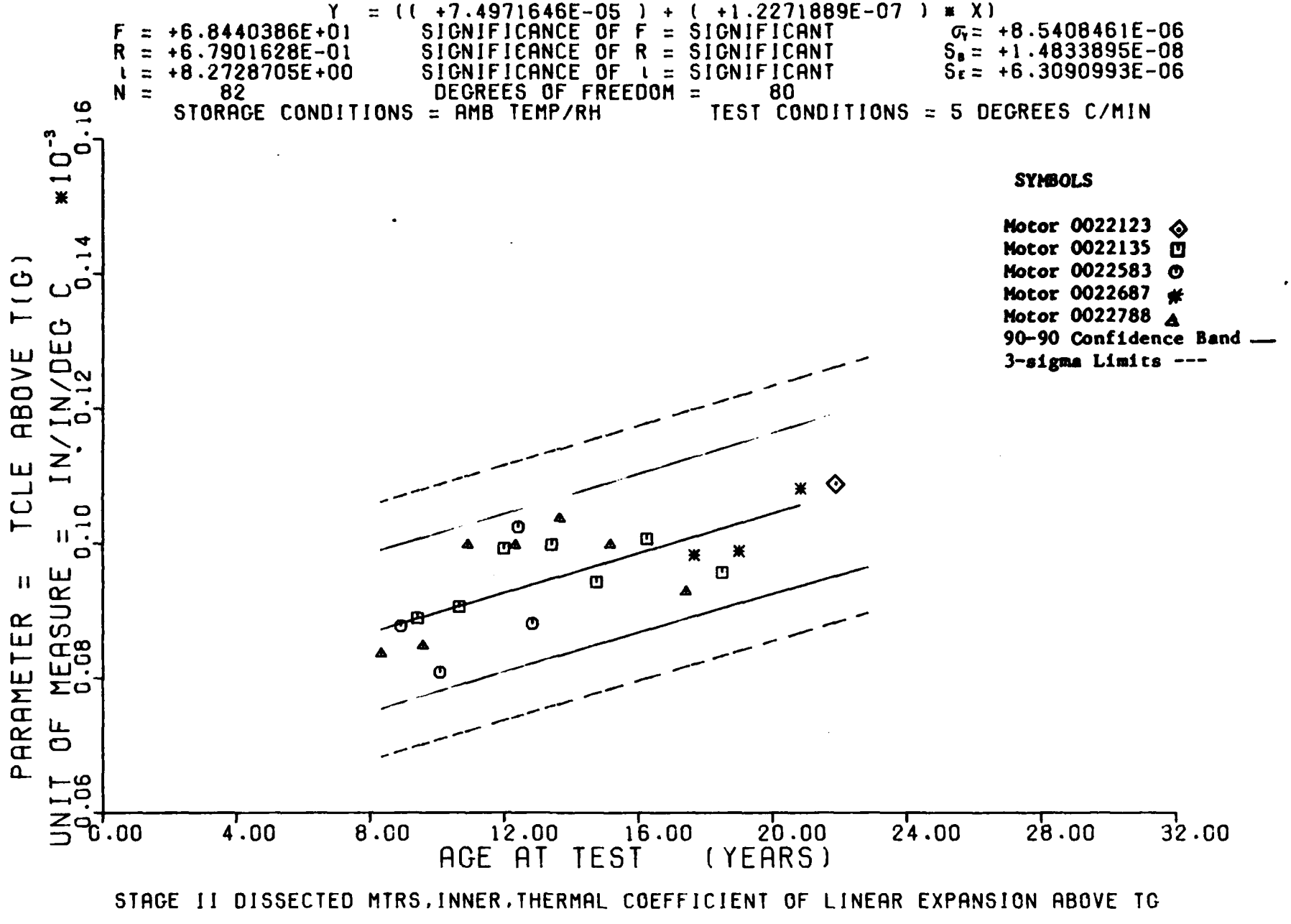

Y = ((+7.4971646E-05) + (+1.2271889E-07) * X)
F = +6.8440386E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = +6.7901628E-01 SIGNIFICANCE OF R = SIGNIFICANT
ι = +8.2728705E+00 SIGNIFICANCE OF ι = SIGNIFICANT
N = 82 DEGREES OF FREEDOM = 80
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = 5 DEGREES C/MIN
σT = +8.5408461E-06
Sβ = +1.4833895E-08
Sε = +6.3090993E-06
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
PARAMETER = TCLE ABOVE T(G)
UNIT OF MEASURE = IN/IN/DEG C *10-3
0.06
0.08
0.10
0.12
0.14
0.16
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
STAGE II DISSECTED MTRS,INNER,THERMAL COEFFICIENT OF LINEAR EXPANSION ABOVE TG

Figure 69

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
109.0	8	+8.3637394E-05	+3.5026776E-06	+9.1199595E-05	+7.8999990E-05	+8.7243533E-05
167.0	8	+8.7737367E-05	+7.4214193E-06	+9.8199990E-05	+7.9099998E-05	+8.8102562E-05
113.0	8	+8.6895920E-05	+4.8243024E-06	+9.5799587E-05	+8.2099999E-05	+8.8838874E-05
115.0	3	+8.4799947E-05	+8.6077619E-07	+8.5599996E-05	+8.3899998E-05	+8.9084307E-05
121.0	3	+8.0866651E-05	+2.2299226E-06	+8.3399994E-05	+7.9199991E-05	+8.9830619E-05
128.0	3	+9.0566609E-05	+3.1903033E-06	+9.4199589E-05	+8.8299988E-05	+9.0679663E-05
131.0	3	+9.5766606E-05	+6.4448206E-06	+1.0659999E-04	+9.3799986E-05	+9.1047812E-05
144.0	3	+9.9233264E-05	+5.5595177E-06	+1.0549998E-04	+9.4899995E-05	+9.2643167E-05
148.0	3	+9.9733311E-05	+2.3186348E-06	+1.0239999E-04	+9.8199991E-05	+9.3134032E-05
149.0	3	+1.0243328E-04	+3.3243529E-06	+1.0449999E-04	+9.9599994E-05	+9.3256749E-05
154.0	3	+8.8099928E-05	+4.4693362E-06	+9.1699999E-05	+8.3099992E-05	+9.3870345E-05
161.0	3	+9.5766606E-05	+1.7081321E-06	+1.0139998E-04	+9.7999989E-05	+9.4729788E-05
164.0	3	+1.0365997E-04	+2.9216921E-06	+1.0679999E-04	+1.0099999E-04	+9.5097537E-05
177.0	4	+9.4274932E-05	+2.5359835E-06	+9.7599586E-05	+9.1699999E-05	+9.6692878E-05
182.0	3	+9.5833268E-05	+8.2263812E-07	+1.0039999E-04	+9.8899996E-05	+9.7306474E-05
195.0	3	+1.0066665E-04	+1.8825238E-06	+1.0189999E-04	+9.8499993E-05	+9.8901829E-05
209.0	3	+9.2799929E-05	+2.0846712E-06	+9.5199997E-05	+9.1499998E-05	+1.0061988E-04
212.0	3	+9.8266638E-05	+2.9273918E-06	+1.0149998E-04	+9.5799987E-05	+1.0098805E-04
222.0	3	+9.5666619E-05	+3.0453578E-06	+9.9099997E-05	+9.3299997E-05	+1.0221522E-04
228.0	3	+9.8666643E-05	+7.3230017E-06	+1.0649999E-04	+9.1899986E-05	+1.0295155E-04
256.0	6	+1.0811656E-04	+3.6128091E-06	+1.1169999E-04	+1.0279999E-04	+1.0565135E-04

STAGE II DISSECTED MTRS,INNER,THERMAL COEFFICIENT OF LINEAR EXPANSION ABOVE TG

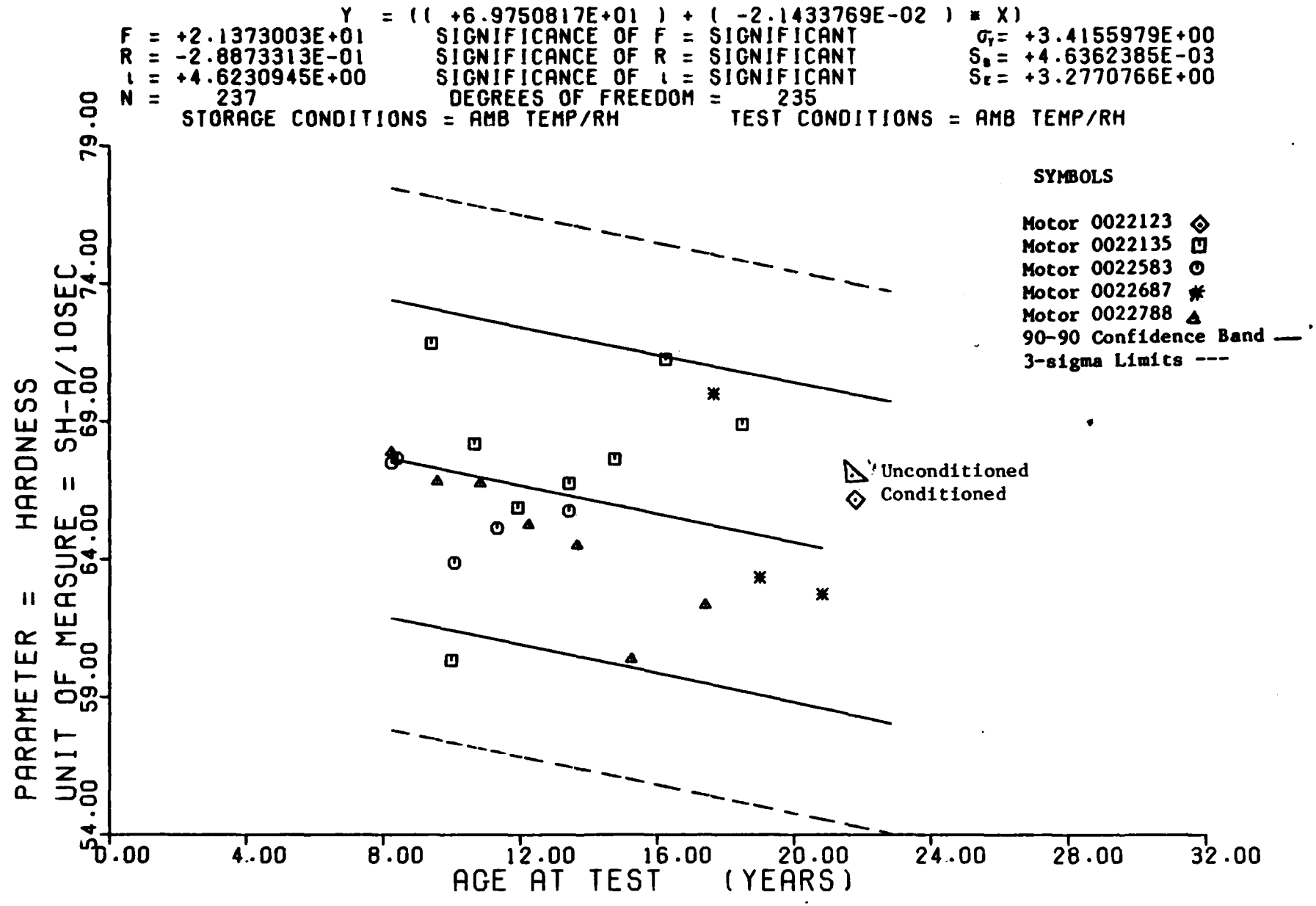

Y = ((+6.9750817E+01) + (-2.1433769E-02) * X)
F = +2.1373003E+01 SIGNIFICANCE OF F = SIGNIFICANT
R = -2.8873313E-01 SIGNIFICANCE OF R = SIGNIFICANT
t = +4.6230945E+00 SIGNIFICANCE OF t = SIGNIFICANT
N = 237 DEGREES OF FREEDOM = 235
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
σy = +3.4155979E+00
Sb = +4.6362385E-03
Sε = +3.2770766E+00
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
Unconditioned
Conditioned
PARAMETER = HARDNESS
UNIT OF MEASURE = SH-A/10SEC
79.00
74.00
69.00
64.00
59.00
54.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS ONLY,OUTER,HARDNESS,NON-ORNTD,SHORE-A,10-SEC.

Figure 70

****** LINEAR REGRESSION ANALYSIS ******

***** ANALYSIS OF TIME SERIES *****

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	36	+6.7694442E+01	+1.4893803E+00	+7.0000000E+01	+6.5000000E+01	+6.7628960E+01
101.0	3	+6.7666656E+01	+1.1547005E+00	+6.9000000E+01	+6.7000000E+01	+6.7585998E+01
113.0	18	+7.1833328E+01	+9.2354614E-01	+7.3000000E+01	+7.0000000E+01	+6.7338796E+01
115.0	16	+6.6812500E+01	+1.1672617E+00	+6.9000000E+01	+6.5000000E+01	+6.7295934E+01
120.0	3	+6.0333328E+01	+5.7735026E-01	+6.1000000E+01	+6.0000000E+01	+6.7178756E+01
121.0	16	+6.3875000E+01	+1.3601470E+00	+6.6000000E+01	+6.1000000E+01	+6.7157319E+01
128.0	16	+6.8187500E+01	+2.0726392E+00	+7.1000000E+01	+6.5000000E+01	+6.7007203E+01
130.0	8	+6.6750000E+01	+1.0350983E+00	+6.8000000E+01	+6.5000000E+01	+6.6964416E+01
136.0	8	+6.5125000E+01	+6.4086994E-01	+6.6000000E+01	+6.4000000E+01	+6.6835815E+01
143.0	8	+6.5875000E+01	+1.9594095E+00	+6.8000000E+01	+6.3000000E+01	+6.6685775E+01
147.0	8	+6.5250000E+01	+1.1649647E+00	+6.7000000E+01	+6.4000000E+01	+6.6600051E+01
161.0	16	+6.6250000E+01	+1.2909944E+00	+6.8000000E+01	+6.4000000E+01	+6.6299372E+01
164.0	8	+6.4500000E+01	+1.5118578E+00	+6.7000000E+01	+6.3000000E+01	+6.6235671E+01
177.0	8	+6.7625000E+01	+1.1877349E+00	+7.0000000E+01	+6.6000000E+01	+6.5957131E+01
183.0	8	+6.0375000E+01	+1.9226098E+00	+6.3000000E+01	+5.8000000E+01	+6.5829430E+01
195.0	8	+7.1250000E+01	+1.1649647E+00	+7.3000000E+01	+7.0000000E+01	+6.5571329E+01
209.0	9	+6.2333328E+01	+7.0710678E-01	+6.3000000E+01	+6.1000000E+01	+6.5271143E+01
212.0	8	+7.0000000E+01	+6.7823299E+00	+7.8000000E+01	+6.2000000E+01	+6.5206943E+01
222.0	9	+6.8888885E+01	+1.4529663E+00	+7.0000000E+01	+6.6000000E+01	+6.4992507E+01
228.0	12	+6.3333328E+01	+2.7080128E+00	+6.8000000E+01	+6.0000000E+01	+6.4863906E+01
250.0	11	+6.2727264E+01	+1.1037127E+00	+6.5000000E+01	+6.1000000E+01	+6.4393364E+01

II STAGE CSCT MTRS CNLY,OUTER,HARDNESS,NON-CRNTD,SHORE-A,10-SEC.

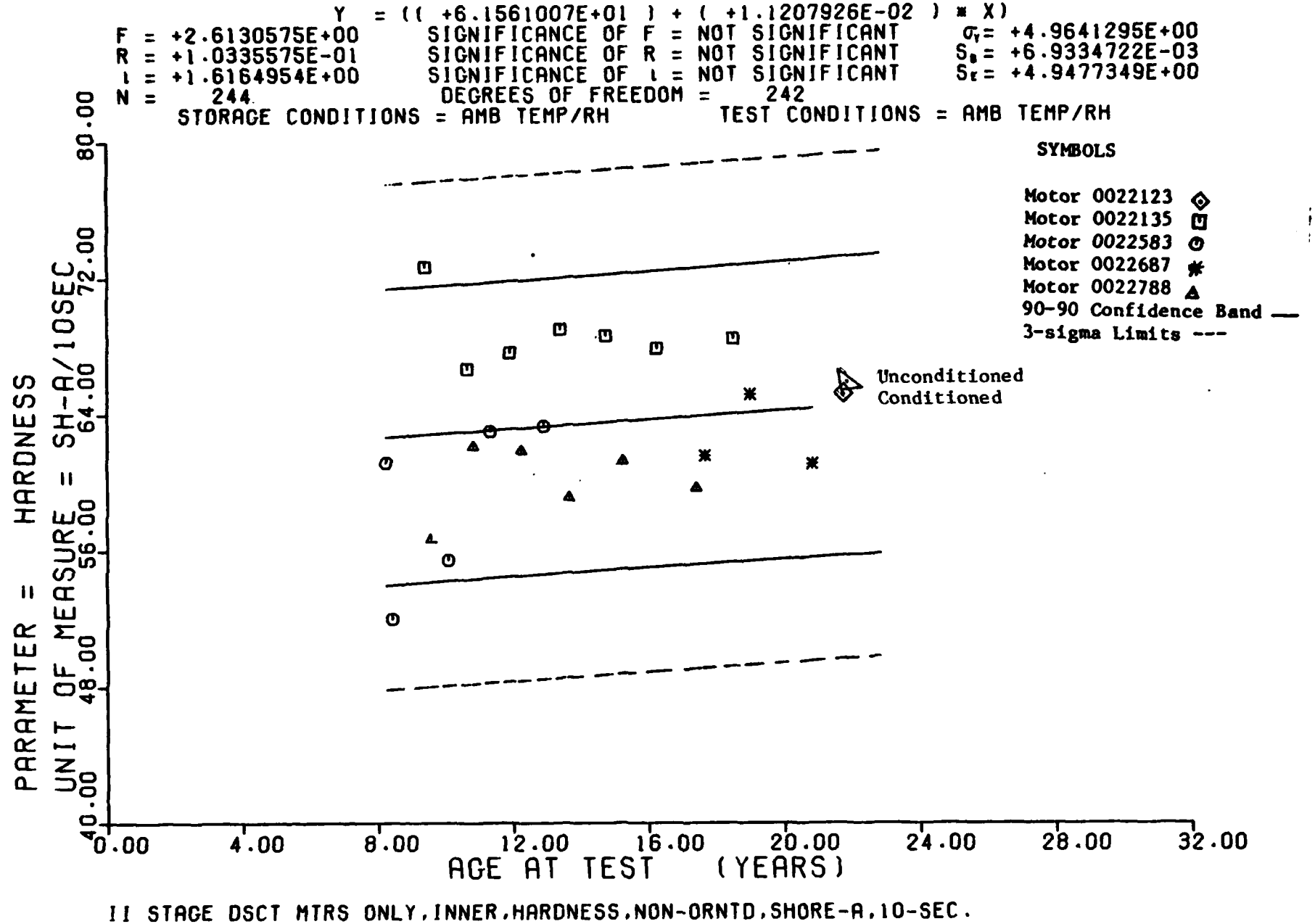

Y = ((+6.1561007E+01) + (+1.1207926E-02) * X)
F = +2.6130575E+00 SIGNIFICANCE OF F = NOT SIGNIFICANT σy = +4.9641295E+00
R = +1.0335575E-01 SIGNIFICANCE OF R = NOT SIGNIFICANT Sb = +6.9334722E-03
ι = +1.6164954E+00 SIGNIFICANCE OF ι = NOT SIGNIFICANT Sε = +4.9477349E+00
N = 244 DEGREES OF FREEDOM = 242
STORAGE CONDITIONS = AMB TEMP/RH TEST CONDITIONS = AMB TEMP/RH
SYMBOLS
Motor 0022123
Motor 0022135
Motor 0022583
Motor 0022687
Motor 0022788
90-90 Confidence Band
3-sigma Limits
Unconditioned
Conditioned
PARAMETER = HARDNESS
UNIT OF MEASURE = SH-A/10SEC
40.00
48.00
56.00
64.00
72.00
80.00
0.00
4.00
8.00
12.00
16.00
20.00
24.00
28.00
32.00
AGE AT TEST (YEARS)
II STAGE DSCT MTRS ONLY,INNER,HARDNESS,NON-ORNTD,SHORE-A,10-SEC.

Figure 71

**** LINEAR REGRESSION ANALYSIS ****

*** ANALYSIS OF TIME SERIES ***

AGE (MONTHS)	SPECIMENS PER GROUP	MEAN Y	STANDARD DEVIATION	MAXIMUM Y	MINIMUM Y	REGRESSION Y
99.0	36	+6.2055541E+01	+1.3720567E+00	+6.6000000E+01	+6.0000000E+01	+6.2670579E+01
101.0	3	+5.2000000E+01	+1.0000000E+00	+5.3000000E+01	+5.1000000E+01	+5.2692993E+01
113.0	18	+7.2666656E+01	+7.6696498E-01	+7.4000000E+01	+7.2000000E+01	+6.2837409E+01
115.0	16	+5.6687500E+01	+1.0144785E+00	+5.8000000E+01	+5.5000000E+01	+6.2849014E+01
121.0	16	+5.5437500E+01	+3.1191612E+00	+5.9000000E+01	+5.1000000E+01	+6.2917160E+01
128.0	16	+6.6687500E+01	+8.7321245E-01	+6.8000000E+01	+6.5000000E+01	+6.2956620E+01
130.0	8	+6.2125000E+01	+1.2464234E+00	+6.5000000E+01	+6.1000000E+01	+6.2978135E+01
136.0	8	+6.3000000E+01	+7.5592894E-01	+6.4000000E+01	+6.2000000E+01	+6.3085291E+01
143.0	8	+6.7625000E+01	+7.4402380E-01	+6.9000000E+01	+6.7000000E+01	+6.3163726E+01
147.0	8	+6.1875000E+01	+6.4086994E-01	+6.3000000E+01	+6.1000000E+01	+6.3209572E+01
155.0	16	+6.3312500E+01	+2.7499999E+00	+6.8000000E+01	+6.0000000E+01	+6.3298233E+01
161.0	8	+6.9000000E+01	+5.3452248E-01	+7.0000000E+01	+6.8000000E+01	+6.3365478E+01
164.0	8	+5.9125000E+01	+1.1259916E+00	+6.0000000E+01	+5.7000000E+01	+6.3399093E+01
177.0	8	+6.8625000E+01	+9.1612538E-01	+7.0000000E+01	+6.7000000E+01	+6.3544709E+01
183.0	8	+6.1250000E+01	+1.9820624E+00	+6.4000000E+01	+5.9000000E+01	+6.3612045E+01
195.0	8	+6.7875000E+01	+6.4086994E-01	+6.9000000E+01	+6.7000000E+01	+6.3746551E+01
209.0	9	+5.9666656E+01	+3.0413812E+00	+6.2000000E+01	+5.3000000E+01	+6.3903457E+01
212.0	9	+6.1555541E+01	+5.2704627E-01	+6.2000000E+01	+6.1000000E+01	+6.3937072E+01
222.0	9	+6.8444442E+01	+7.2648315E-01	+6.9000000E+01	+6.7000000E+01	+6.4049163E+01
228.0	12	+6.5166656E+01	+1.3371158E+00	+6.7000000E+01	+6.3000000E+01	+6.4116499E+01
250.0	12	+6.1083328E+01	+2.6097137E+00	+6.5000000E+01	+5.7000000E+01	+6.4362976E+01

II STAGE DSCT MTRS ONLY,INNER,HARDNESS,NON-CRNTD,SHORE-A,10-SEC.

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4. TITLE *(and Subtitle)* Surveillance Report LGM-30B, Stage II, Dissected Motor Test Report		5. TYPE OF REPORT & PERIOD COVERED Test Results - Annual 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) ELIZABETH M. DALABA		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Propellant Analysis Laboratory Directorate of Maintenance Hill AFB, UT 84056-5149		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Service Engineering Division Directorate of Materiel Management Hill AFB, UT 84056-5149		12. REPORT DATE June 1986 13. NUMBER OF PAGES 152
14. MONITORING AGENCY NAME & ADDRESS*(if different from Controlling Office)*		15. SECURITY CLASS. *(of this report)* 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

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19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*

Minuteman
Solid Propellant
Dissected Motors

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

This report contains data from first time testing of dissected Minuteman II Stage II motor S/N 0022123 assigned to the Reentry System Launch Program (RSLP). No statistical inferences were determined with only one set of data, except for hardness, where humidified and non-humidified specimens were tested.

Data have been overlayed on multi-motor regression plots for visual reference only. Plots have been made to show differences between different blocks and slices of propellant within the same motor used for mini-thin tensile tests.

DD FORM 1 JAN 73 1473

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Visual observation indicates this motor resembles motor S/N 0022135 more closely than any of the previously tested dissected motors.

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